



United Nations Development Programme

Country: China

PROJECT DOCUMENT

Project Title: CBPF-MSL: Strengthening the management effectiveness of the protected area network in the Daxing'anling Landscape

UNDAF Outcome(s): Outcome 1: Government and other stakeholders ensure environmental sustainability, address climate change, and *promote* a green, low carbon economy.

UNDP Strategic Plan Environment and Sustainable Development Primary Outcome: Mobilizing environmental financing

UNDP Strategic Plan Secondary Outcome: Mainstreaming environment and energy

Expected CP Outcome(s): Outcome 4: Low carbon and other environmentally sustainable strategies and technologies are adapted widely to meet China's commitments and compliance with Multilateral Environmental Agreements; and Outcome 5. The vulnerability of poor communities and ecosystems to climate change is reduced.

Expected CPAP Output(s): Output 4.1 Policy and capacity barriers for the sustained and widespread adoption of low carbon and other environmentally sustainable strategies and technologies removed, and Output 5.1 A strengthened policy, legal, institutional framework for the sustainable use of land, water, the conservation of biodiversity, and other natural resources in fragile ecosystems is enforced.

Executing Entity/Implementing Partner: State Forestry Administration of China (SFA) through the Heilongjiang Daxing'anling Forestry Management Authority and the Inner Mongolia Daxing'anling Forestry Management Authority

Implementing Entity/Responsible Partners: State Forestry Administration of China (SFA) through the umbrella of the China Biodiversity Partnership Framework and Action Plan (CBPF) and Main Streams of Life - Wetland PA System Strengthening Programme

UNDP GEF PIMS 4824 / GEF Project ID 4868

Brief description

The Daxing'anling Landscape comprises a vast wilderness of 189,775 km² of cold temperate forest, un-tamed rivers and extensive wetlands in the most northern and coldest part of China. It supports globally significant biodiversity, exhibits unique forest and wetland ecosystems, and provides a vital water source for one of NE Asia's major rivers – the Heilongjiang (Amur River). Wetlands cover 14.4% of the area, and are dominated by herbaceous and forested swamps. With a population of less than 1 million, population density is very low. Since the 1950s, the vast coniferous forests have been extensively and unsustainably logged, with massive impacts on biodiversity and ecosystem services. With approaching exhaustion of the timber supplies, major policy changes have limited forestry to more sustainable levels, supported the establishment of new protected areas, and have provided eco-compensation payments to former foresters. The new vision is for a diverse economy founded on sustainable use of the area's rich environmental assets including its biodiversity and protected areas. The project will play a key role in supporting this policy shift.

Shared between Heilongjiang Province and the Inner Mongolia Autonomous Region, the Daxing'anling Landscape is uniquely under the administration of the State Forestry Administration which manages both forestry and nature conservation activities (and many other public services) through two provincial Forestry Management Authorities (FMAs). The region boasts 43 PAs (nature reserves and wetland parks) covering 16.6% of the territory. However, further additions are required to provide adequate cover to threatened species, corridors for migratory species and adaptation to climate change. Major threats to wetland biodiversity include forest fires, agricultural encroachment, overharvesting of timber and non-timber forest products, illegal harvests and new pressures from tourism and associated

infrastructure, mining and climate change.

The internal challenges to the effective management of the Daxing'anling's PA system are significant. Whilst the protected areas often have many staff, they lack the training and institutional mechanisms for PA management. With falling income from forestry they also lack sufficient finances for their operations. There is a large gap in finance, skills and equipment for conserving biodiversity and managing human activities within the protected areas. Local community participation in protected areas management is limited, with no participation in governance and minimal co-management.

The project will strengthen the systemic, institutional and operational capacity to manage the Daxing'anling's PAs more effectively. It will mainstream biodiversity and the PA system into provincial socio-economic development priorities, in order to avoid future conflicts and ensure long-term financial sustainability. It will also support the FMAs to effectively plan, resource and manage an enhanced PA System, including filling gaps in ecosystem representation through PA expansion. A targeted capacity building programme will address key deficiencies in skills, and information management systems will be enhanced. Best practice participatory approaches to conserving biodiversity, managing human activities and PA management will be introduced at two demonstration sites for replication throughout the PA network.

The global environmental benefits of the project will be achieved by: (i) significant reduction in the threats to global biodiversity from incompatible activities; (ii) formal protection of an additional 1.1 million ha including 0.78 million ha of natural wetlands providing improved security for threatened and migratory species, and possibilities to adapt to climate change; (iii) improved management effectiveness at PA level (from a METT baseline ranging from 30 to 53 (average of 44), to a final METT target average score >55 and both demonstration sites increasing by at least 20 from their baseline score; (iv) improvement of overall PA institutional capacity (from a baseline of 49% (Heilongjiang) and 41% (Inner Mongolia) in the Capacity Assessment Scorecard, to a final value >60% for Heilongjiang section and >55% for Inner Mongolia; and (v) increased financial sustainability of PAs (from a financial sustainability baseline score of 16% for both provincial sections, to a final value >30%). Increased community participation and co-management within the PA System will be supported by improved public awareness of the value of conserving biodiversity.

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Agreed by Ministry of Finance of China (MOF):

Date/Month/Year

Agreed by UNDP:

Date/Month/Year

Agreed by State Forestry Administration of China (SFA) on behalf of the Heilongjiang Daxing'anling Forestry Management Authority and the Inner Mongolia Daxing'anling Forestry Management Authority:

Date/Month/Year

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ACRONYMS

ADB	Asian Development Bank
APR	Annual Project Report
ARR	Annual Review Report
AWP	Annual Work Plan
BD	Biodiversity
BSAP	Biodiversity Strategy and Action Plan
CAS	Chinese Academy of Sciences
CBD	Convention on Biological Diversity
CCA	Community conserved area
CCICED	China Council for Internatl. Cooperation on Environment and Development
CDR	Combined Delivery Report
CEPF	Critical Ecosystems Partnership Fund
CHM	Clearing House Mechanism (under CBD)
CI	Conservation International
CITES	Convention on International Trade in Endangered Species
CPAP	Country Programme Action Plan
CR	Critically Endangered (IUCN red list category)
CTA	Chief Technical Advisor
DBCC	Daxing'anling Biodiversity Conservation Committee
DPM	Deputy Project Manager
EA	Executing Agency
EBA	Endemic Bird Area
ECBP	EU-China Biodiversity Programme
EIA	Environmental Impact Assessment
EN	Endangered (IUCN red list category)
EU	European Union
FAO	Food and Agriculture Organization of United Nations
FMA	Forestry Management Authority
FMB	Forestry Management Bureau
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographical Information System
IA	Implementing Agency
IBA	Important Bird Area
IAS	Invasive alien species
IFI	International Financial Institution
IPM	Integrated Pest Management
IPCC	Intergovernmental Panel on Climate Change
IR	(Project) Inception Report
ISS	Implementation Support Services
M&E	Monitoring and evaluation
MEA	Multilateral Environmental Agreement
MEP	Ministry of Environmental Protection
METT	Management Effectiveness Tracking Tool
MoA	Ministry of Agriculture
MoF	Ministry of Finance
MoU	Memorandum of Understanding
MTEF	Medium Term Expenditure Framework
MYFF	Multi-Year Funding Framework
NBSAP	National Biodiversity Strategy and Action Plan
NEX	National Execution
NGO	Non-Governmental Organisation

NNR	National Nature Reserve
NPD	National Project Director
NR	Nature Reserve
NRDC	National Reform and Development Commission
NT	Near Threatened (IUCN red list category)
PA	Protected Area (with 6 IUCN categories, including Nature Reserves)
PCG	Project Coordination Group
PBB	Performance-Based Budgeting
PIMS	Project Information Management System
PIR	Project Implementation Review
PM	Project Manager
PMO	Project Management Office
PMU	Project Management Unit
PNR	Provincial Nature Reserve
PPG	Project Preparation Grant (for GEF)
PPR	Project Progress Report
PRC	People's Republic of China
PSC	Project Steering Committee
PTR	Project Technical Report
PWC	Project Working Committee
QPR	Quarterly Progress Report
RCU	(UNDP-GEF) Regional Coordinating Unit
RMB	Chinese currency (yuan)
SEA	Strategic Environmental Assessment
SFA	State Forestry Administration
SBAA	Standard Basic Assistance Agreement
SGP	(UNDP-GEF) Small Grants Programme
SLM	Sustainable Land Management
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
SO	Strategic Objective
SP	Strategic Programme
SRF	Strategic Results Framework
TBD	To Be Determined
TOR	Terms of Reference
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNDP-CO	UNDP Country Office
UNFCCC	United Nations Framework Convention on Climate Change
UNCBD	United Nations Convention on Biological Diversity
UNDAF	United Nations Development Assistance Framework
UNEP	United Nations Environment Programme
VU	Vulnerable (IUCN red list category)
WWF	World Wide Fund for Nature
Y1, Y2, etc.	Year 1, Year 2 , etc.

SECTION I: Elaboration of the Narrative

PART I: Situation Analysis

INTRODUCTION

1. This project forms one of the 6 provincial level projects of the GEF Main Streams for Life (MSL) initiative under the China Biodiversity Partnership Framework (CBPF) which has the objective of catalysing the sustainability of the national protected area system for conservation of globally significant wetland biodiversity. The proposed “long-term solution” to safeguard wetland biodiversity is to build a stronger PA system that has a far more robust governance framework to deliver improved conservation across the country.
2. The Daxing’anling Project addresses major challenges to the conservation of globally significant biodiversity across a vast area (more than 4.5 times larger than Switzerland) of forest and wetlands in the most northern part of China. Despite a low human population density, the biodiversity and ecosystem services of the area (particularly water supply and carbon storage) have been significantly degraded as a result of extensive and unsustainable logging since the middle of the last century. With the near exhaustion of timber supplies and dramatic negative impacts on downstream areas through flooding and erosion, policies have changed during the last decade towards more sustainable management of the forests and wetlands and the move to a more diverse economy based on the region’s rich natural resources. The project will play a key role in supporting this policy shift.
3. Shared between Heilongjiang Province and the Inner Mongolia Autonomous Region, the Daxing’anling Landscape is uniquely under the administration of the State Forestry Administration which manages both forestry and nature conservation activities (and many other public services) through two provincial Forestry Management Authorities. Although there are already 43 PAs covering 16.6% of the area, the internal challenges to their effective management are significant. Whilst the PAs often have many staff, they lack the training and institutional mechanisms for PA management. With falling income from forestry the FMAs also lack sufficient finances, creating a large gap in finance, skills and equipment for conserving biodiversity and managing human activities within the PAs. Local community participation in PA management is limited, with no participation in governance and few examples of co-management.
4. The project will strengthen the systemic, institutional and operational capacity to manage the Daxing’anling’s PAs more effectively. It will mainstream biodiversity and the PA system into provincial socio-economic development priorities, in order to avoid future conflicts and ensure long-term financial sustainability. It will also support the FMAs to effectively plan, resource and manage an enhanced PA system, including filling gaps in ecosystem representation through PA expansion. A targeted capacity building programme will address key deficiencies in skills, and information management systems will be enhanced. Best practice participatory approaches to conserving biodiversity, managing human activities and PA management will be introduced at two demonstration sites, the Duobuku’er NNR and the Genheyuan NWP for replication throughout the PA network.

CONTEXT AND GLOBAL SIGNIFICANCE

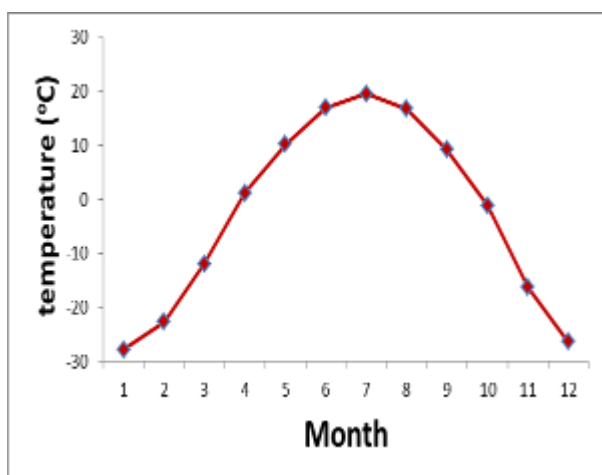
ENVIRONMENTAL CONTEXT

5. The Daxing'anling Region is located in the most northern part of China and straddles the northwest of Heilongjiang Province and the northeast of Inner Mongolia Autonomous Region (latitude between 47°03' 40" and 53°33' 25" N and longitude 119°36'20" and 127°01'17"E), bounded to the north by the border with Russia. This region comprises a vast wilderness area of 189,775 km² (106,275 km² in Inner Mongolia and 83,500 km² in Heilongjiang) of cold temperate forest, un-tamed rivers and extensive wetlands (predominantly forested and herbaceous swamps, including peatlands). The topography is of low rounded mountains and hills, highest in the south and west and lowest in the north and east, with an average altitude of about 500m. The area is underlain by discontinuous permafrost at 0.8 – 1.5 m, particularly to the north.

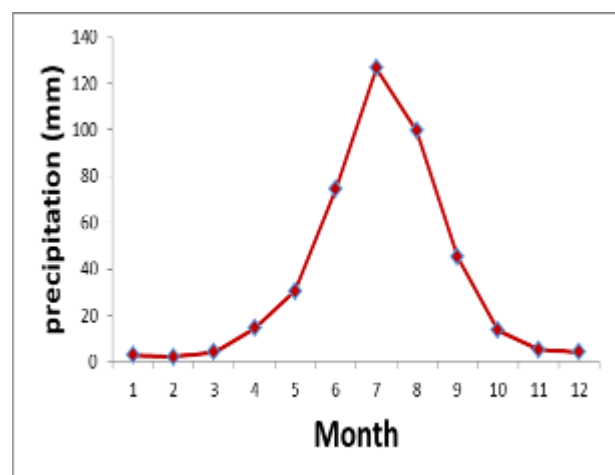
6. The climate of the Daxing'anling Landscape is typical of continental high latitudes, being dry and cold with a long frigid winter (with average temperatures falling to –30°C in December and January) and a short cool summer with highest average monthly temperature of about 20°C in July (Figure 1). The lowest temperature ever recorded in China (-52.3 °C) is from the Daxing'anling region. Annual precipitation is approximately 400-500mm and most occurs between May and September with the average monthly peak of 120mm in July (Figure 1). The average annual wind speed is 2-3 m / sec., and the strongest winds mainly occur in summer (Force 7-8). Average temperatures have warmed by almost 2°C during the last 50 years and extreme weather events are becoming more frequent. The growing season is about 100 days.

Figure 1: Average monthly temperatures and precipitation in the Daxing'anling region

Average monthly temperatures in Daxing'anling



Average monthly precipitation in Daxing'anling



7. The Daxing'anling Landscape provides a vital water source for one of NE Asia's major rivers – the Heilongjiang (Amur River), and is also the main water resource for the Hulunbeier region in Inner Mongolia. Drainage to the Heilongjiang is either direct or via the Songhua River, and represents the principal source of water for much of the Heilongjiang Province and of water to other wetlands further downstream. Many of the rivers remain in largely natural state, and water quality is high. The overall water resource (surface and ground waters combined) is estimated to be 19.7 billion cubic metres.

Figure 2: Map of the Daxing'anling Landscape showing location in China



8. The Daxing'anling Landscape supports globally significant biodiversity as a result of its extensive and diverse habitats including forests, wetlands (including rivers) and meadows. The predominant natural vegetation is vast stands of predominantly coniferous forest (Siberian larch *Larix gmelinii* as well as Korean pine and spruce), as well as broad-leaved forest (white birch, oaks, *Populus davidiana*, *Chosenia arbutifolia*) sedges, grasses and mosses, shrubs (for example *Vaccinium uliginosum*, *Ovalifolia*, willow family (*Salix*)), floating plants (duckweed, water lily, banana-plant, and buttercup) and submerged plants (*Potamogeton pectinatus*, *Ceratophyllum demersum*). However in the past 50 years, the vegetation has changed remarkably under the heavy forestry development in the region, and encroachment from agriculture (in the south). Large scale deforestation particularly since the 1950s reduced the primary forests dramatically, and much of the landscape is now dominated by secondary regrowth and extensive areas that have been replanted.

9. Due to the broad flat valleys and underlying permafrost, wetlands have formed widely across the landscape. According to a detailed survey in 2010 by SFA, the total area of wetlands throughout the Daxing'anling Landscape was 27,339 km², which means these habitats cover 14.4% of the total area. The vast majority of the wetlands (96.5%) are classified as swamp wetlands, followed by Riverine (3.4%), Lacustrine (0.1%) and Man-

made (<0.1%) wetlands (Table 1). The swamp wetlands can be further subdivided into 6 types, with forested swamps and herbaceous swamps predominating, followed by shrub swamps and swamp meadows. The forested, shrub, *Carex* meadow and peat bog wetland ecosystems are important due to their geographic location, climatic condition and frozen subsoils with extensive but largely un-quantified amounts of peat and organic-rich soils.

Table 1: Area of main wetland types across the Daxing'anling landscape

Wetland Type	Wetlands in Heilongjiang Section	Wetlands in Inner Mongolia Section	Total wetlands in Daxing'anling Landscape	
	(ha)	(ha)	(ha)	%
Riverine	58,600	34,506	93,106	3.4
Lacustrine	500	2,208	2,708	0.1
Swamp	1,471,100	1,166,321	2,637,421	96.5
Man-made	600	85	685	-
Total	1,530,800	1,203,120	2,733,920	100

10. The extreme cold and dry climate and short growing season (about 100 days) makes the Daxing'anling Landscape unfavourable for agriculture except on the southern and western fringes where extensive agricultural areas developed following the exploitation of the forests, causing a 100km northward retreat of the typical Daxing'anling landscape. Although the growing season is currently too short, in the long-term the further warming of the climate that is being recorded may eventually enable further northward expansion of agriculture with negative consequences for the natural ecosystems. The harsh climate similarly means that the growth rates of the trees are extremely slow, with conifers taking more than 100 years to achieve maturity – this means that the restoration of the vast areas of degraded forest will be a very slow process.

11. In-situ environmental monitoring in the Daxing'anling region was initiated only in recent years and only in some PAs. The in-situ monitoring station within the Nanwenghe NNR is of particular significance in Heilongjiang province, and there are also important monitoring stations in Genhe City and Beidahe in the Inner Mongolia section. However, although environmental monitoring plans have been formulated in many nature reserves, they are not effective or even implemented, largely due to a lack of technical capacity on the ground.

GLOBAL SIGNIFICANCE OF DAXING'ANLING'S BIODIVERSITY

12. Daxing'anling represents a unique forest and wetland wilderness habitat and is home to cold temperate species that are found nowhere else in China. It is the largest area of cold temperate forest in China and supports one of the country's largest peatlands. It is one of the 35 priority areas identified in the National Biodiversity Strategy and Action Plan (NBSAP, 2010) for biodiversity conservation, and supports 11 Important Bird Areas (IBAs) and one Ramsar site. It is also one of the 50 National Ecological Function Zones¹ identified for

¹ In 2008, the 50 National Ecological Function Zones was jointly issued by the Ministry of Environment Protection and the Chinese Academy of Sciences, identifying the most important zones for ecological function of biodiversity conservation and water retention in China.

targeted conservation and protection. It is a transition area from cold temperate to warm temperate forest conditions.

13. Estimates for the number of species in different taxonomic groups for the Heilongjiang and Inner Mongolian sections of the Daxing'anling are as follows: Mammals (56/57), Birds (250/276), Reptiles (14/10), Fish (76/42). The area supports large numbers of rare nationally and globally threatened species including many on the IUCN Red List (Table 2). There are 55 species of animals listed under national key protection (Classes I & II), including the following 14 species in Class I: Sable *Martes zibellina*, Wolverine *Gulo gulo*, Musk deer *Moschus moschiferus*, Black Stork *Ciconia nigra*, Oriental white stork *Ciconia boyciana*, Scaly-sided merganser *Mergus squamatus*, Smew *Mergus albellus*, golden eagle *Aquila chrysaetos*, white-tailed eagle *Haliaeetus albicilla albicilla*, Black-billed Capercaillie *Tetrao parvirostris*, hooded crane *Grus monacha*, red-crowned crane *Grus japonensis*, Siberian crane *Grus leucogeranus*, and great bustard *Otis tarda*. There are large numbers of endemic plants and animals including fish species such as *Brachymystax lenok*, *Hucho taimen*, *Thymallus arcticus grubei*, *Esox reicherti* - the Amur pike. There are around 30 commercially valuable fish species, and well over 600 commercially valuable plants and mushrooms (for eating and use in traditional medicine).

Table 2: IUCN Red List species recorded in the Daxing'anling region

Taxonomic Group	Species	IUCN Red List Assessment
Plants	<i>Chosenia arbutifolia</i>	Vulnerable
	<i>Aldrovanda vesiculosa</i>	Endangered
	<i>Fraxinus mandshurica</i>	Vulnerable
	<i>Pinus sylvestris var. mongolica</i>	Threatened
	<i>Astragalus membranaceas</i>	Threatened
Mammals	<i>Ursus arctos lasiotus</i>	Vulnerable
	<i>Lutra lutra</i>	Near Threatened
	<i>Moschus moschiferus sibiricus</i>	Vulnerable
	<i>Alces alces cameloides</i>	Threatened
Birds	<i>Mergus squamatus</i>	Endangered
	<i>Ciconia boyciana</i>	Endangered
	<i>Grus leucogeranus</i>	Critically Endangered
	<i>Grus japonensis</i>	Threatened
	<i>Grus monacha</i>	Vulnerable
	<i>Grus vipio</i>	Vulnerable
	<i>Aquila chrysaetos canadensis</i>	Near Threatened
	<i>Haliaeetus leucoryphus</i>	Vulnerable
	<i>Haliaeetus pelagicus</i>	Vulnerable
	<i>Otis tarda dybowski</i>	Vulnerable
Fish	<i>Hucho taimen</i>	Vulnerable
	<i>Accipenser schrenkii</i>	Critically Endangered
	<i>Huso dauricus</i>	Critically Endangered

14. Notable large mammals include arctic and northern species such as wolverine, lynx, moose, wolf, woodland caribou, brown bear, black bear, fox, mink, arctic hare and deer; however these have low populations due to past hunting (illegal since 2000), current poaching and degradation of habitat. Up until the end of the 19th Century, the Amur Tiger's wide range in Russia and the north of China included the Daxing'anling, but during the 20th Century there was a rapid decline in range and numbers and the species disappeared from the region. There are now only 20 individuals in China, the nearest being many hundreds of kilometres distant in the Russian Far East and on the borders of Jilin and Heilongjiang province in NE China.

15. Contiguity with Russia and Mongolia and its wilderness nature makes it an important route for migrating forest animal species between Siberia² and north China and its wetlands serve as an important staging and breeding area for a large number of migrating water birds such as red-crowned crane, Siberian crane, black stork, white stork, whooper swan, Mandarin duck, as well as various other species of geese and ducks. Rivers provide spawning habitat for migrating fish species in the Amur River basin such as the endangered Amur sturgeon and Siberian Huso sturgeon.

16. There is extremely limited data on the distribution, population size and trends of most animal species in the Daxing'anling. One exception concerns a wildlife investigation in Huzhong Nature Reserve in 2004. This showed that the ecosystem in Huzhong Nature Reserve has significantly improved due to the implementation of National Natural Forest Protection Programme and Wild Animal and Plant Protection Project. The population sizes of Wolverine (*Gulo gulo*) and sable (*Martes zibellina*) - two first class nationally protected mammals, have increased considerably, which is also the case for moose and red deer. This provided a very positive signal that conservation projects improve the population of most rare species. Similarly, recent studies³ of lynx (*Lynx lynx*) have suggested that populations inside protected areas are recovering thanks to law enforcement, addressing poaching and the increase in PAs. However, it will be essential to conduct a thorough baseline survey during project implementation, combined with the relevant ongoing survey projects of SFA.

17. Perhaps the most valuable asset of the region is its ecosystem services – in the form of water source and regulation, climate regulation through carbon sequestration, microclimatic regulation effects, air purification, landscape provision for tourism, and of course biodiversity support. The forest soils and wetlands of the Daxing'anling landscape store vast quantities of water which provide crucial water resources for agriculture, urban and industrial use for tens of millions of people living in the downstream river basins and particularly the important Sanjiang plain, one of China's top eight grain production regions. They also ensure the annual recharge of water for numerous downstream wetlands of international and national importance, such as the famous Zhalong Nature Reserve (Ramsar Site). The vegetation cover is also crucially important in reducing run-off of soils and sedimentation in the rivers. However, these services are largely unpaid for by the many wealthier downstream communities and sectors (industry, hydro-power, irrigation and urban water users). The annual carbon sequestration is likely to be very substantial due both to the annual primary (forest) productivity of 25.2 million m³ and to the large proportion of larch and deciduous species that shed needles/leaves in winter which accumulate in the forest and wetlands soils and bogs and are converted to organic carbon.

² Border fencing is not thought to pose a problem for migrating animals in this area

³ Bao Weidong, 2010. Eurasian Lynx in China – present status and conservation challenges.

18. Being relatively arid and at high latitude, the Daxing'anling is not particularly rich in species but the flora and fauna form important assemblages with many endemics and subspecies (eg. *Pinus sylvestris mongolica*, *Martes zibillina princeps*, *Alces alces cameloides*, *Strix uralensis nikolskii*), as well as economically valuable species (eg. *Larix gmelinii*, *Glycine soja*, blueberry, lingon berry). The Daxing'anling Landscape is also known as the "North Pole of China", holding the record for the lowest temperatures recorded nationally. This, together with wilderness landscapes and untamed rivers brings high eco-tourism potential as well as high conservation importance.

19. Only one protected area in the Daxing'anling Landscape has so far been given international recognition, this being the Nanwenghe NNR (229,523ha) in Heilongjiang Province, which was listed under the Ramsar Convention in 2011. There are no UNESCO World Heritage or World Biosphere Reserves. Further assessment of the merits for additional international recognition will be undertaken during the project.

SOCIO-ECONOMIC CONTEXT AND LAND USE

20. The total population in 2011 was 970,245 (516,390 (53.2%) in Heilongjiang province and 453,855 (46.8%) in Inner Mongolia). The population density across the 33 counties (including, cities, leagues and municipalities) is very low, particularly in Inner Mongolia. The mean population density of only 5 persons per km² compares to a national average of 135 persons per km², and as most people live in the small towns of the region, the rural population density is even much lower. Population growth has fallen to very low levels in recent years, and is currently only 1.8% per annum in Heilongjiang section and actually declining in the Inner Mongolia section (lowest rate ever recorded).

20. Urban communities have central provision of drinking water, power, education, health and fast communications. Transport mainly relies on roads and railways, although the quality and density of roads is very low. In recent years, more attention has been given to environmental improvements through cleaning, tree planting, building decoration and street pavements in cities and towns.

21. More than 20 minority groups and 4 religious groups are found in the Daxing'anling region. The indigenous Ewenki people are spread across Russia, Mongolia and China. Around 30,000 live in the Ewenki Autonomous County and some other counties in Inner Mongolia and Heilongjiang Province. Their main livelihood is grazing, agriculture and hunting, and a special hunting permit is granted to the people. The only indigenous people around the target PA areas are the minority local tribe, the Aolugoya Ewenki near the Genheyuan National Wetland Park. They migrated into the area from Russia and used to roam with reindeer, but today number only 243 individuals who are now housed in special accommodation near Genhe city. They are involved in farming deer and tourism (30,000 visitors per annum), and a special hunting permit is also issued to them. During the PPG, consultations were held with representatives of minority groups (Dawaer religion, Ewenki people) which confirmed they would not be adversely affected by project activities but rather benefit from the project. These minority groups will be represented in the local Community Forum to be established for the two project demonstration sites during project implementation.

22. The GDP of the Daxing'anling region totals 16.4 billion yuan (about 2.63 billion US\$), with 76.2% of this generated from the Heilongjiang section despite this occupying only 44% of the area. The area's economy and the employment of the majority of the population depends almost entirely on its natural resources and biodiversity - forestry, agriculture, animal husbandry and fishery; as a result, most workers are male. The two Forestry

Management Authorities (FMAs) are the major employers with 121,482 staff in 2011 (62,969 in Heilongjiang and 58,513 in Inner Mongolia). Forestry is still the most important activity with timber production and processing accounting for 60% of the region's income. However, as a result of the massive over-exploitation of the region's quality timber supplies over the previous half-century, low timber prices and the now tight regulations on forestry and reduced quotas causing declines in timber sales, poverty is a serious issue in the region and the income of forestry workers is low (50% of the provincial average). Even in cities, the average annual income in 2011 was only 12,480 yuan. There has therefore been an increasing reliance on (and growth of) other livelihood options, including collection and processing of non-timber forest products, crop plantation under the forest cover and ecotourism. Other less significant economic activities include mining, animal husbandry and farming (restricted by climate to the southern limits of the area). In the surrounding areas of the PAs, the stakeholders are mainly engaged in the planting and cultivation of medicinal herbs and edible fungi or the production and processing of healthy and green foodstuffs, managing of ecotourism or added-value processing of timber. Therefore, the sectors around the PAs have little impact on the wetlands and PA system.

23. The collection, cultivation and processing of non-timber forest products, or what is locally called the "under forest economy" has become particularly significant. Non-timber forest products include: a) berries (particularly blueberry (*Semen trigonellae*) and lingonberry (*Vaccinium vitis-idaea*); b) fungi (particularly *Auricularia spp.*, *Agaricus spp.*, *Hericium erinaceus* and a wide variety of other mushrooms; c) wild vegetables; d) animal fur and traditional medicinal products; e) medicinal plants. Markets for these products are becoming well established, and as the non-timber products are organic (ie no pesticides or herbicides are used) the market opportunities are excellent. The products can be consumed or preserved at home, or sold at local markets or to dealers who come to the communities to buy them to sell in big cities such as Harbin and Hohhot. There is also a substantial development of sales of berries to local soft drink production plants or wine breweries. Harvesting occurs in the two month season in July and August, and each collector can earn 10,000 RMB (about US\$ 1580) which is a significant contribution to their household, providing important new employment opportunities.

24. Eco-tourism has particular potential for development throughout the Daxing'anling region because of its wilderness forests and rivers and beautiful landscapes, the extensive network of protected areas, rich biodiversity and unique northern location. Because of its record low temperatures, the area is known as the "North Pole of China" giving opportunities for winter sports and activities such as watching the Northern Lights (*Aurora Borealis*). Such tourism is still in its infancy, but is likely to become a major driver of the economy given the increasing wealth, mobility and aspirations of China's population. Careful controls will need to be established to avoid environmental impacts. There are now close to 3000 persons engaged in eco-tourism business around the PAs in Daxing'anling of Heilongjiang alone. In recent years, eco-tourism has expanded rapidly with support of regional policies and special measures. In 2011, Heilongjiang (whole Province) recorded 2.99 million visitors and 2.75 billion RMB of revenue from eco-tourism, an increase of 34% and 37% respectively. In Inner Mongolia, the new concept of tourism with health, enjoyment, summer resort and relaxation is getting more and more popular. In 2011, the PAs and communities around the NRs received 354,500 visitors, and brought revenue of 242 million RMB. For example, direct economic benefits of ecotourism at Kuilehe Wetland in Inner Mongolia included 110 jobs and revenue of 1.5 million RMB.

25. Because of the very short (100 day) growing season and therefore low profitability, agriculture is currently only feasible in the southern fringes of the Daxing'anling region.

Following the clear-felling of forests in this area and the demise of the forestry industry, there was a considerable increase in the area of land under agriculture in this area. This has caused substantial fragmentation (and a 100km retreat towards the north) of the natural habitats in this part of the Daxing'anling Landscape, including within some protected areas which have been subsequently established, such as the Duobuku'er NNR. Because the agriculture requires flat and fertile land, this has had a disproportionate effect on the wetlands. Further expansion of agriculture is now closely regulated and indeed some areas are now being re-afforested, but with the expected continued warming of the climate and lengthening of the growing season there may be further pressures for expansion in the long-term, including through illegal encroachment. Mining, mainly for sand (often in river beds) and rock, as well as a few small-scale gold mines (but no more permitted), has been another source of encroachment into the natural habitats. Agriculture and mining together resulted in the loss of 145ha. per annum of natural habitats (forests) in Inner Mongolia from 2006-10.

PROTECTED AREA SYSTEM: CURRENT STATUS AND COVERAGE

26. The planning and management of the protected areas (PAs) in the Daxing'anling region are under the responsibilities of the Ministry of Environmental Protection (MEP), the State Forestry Administration (SFA), the governments of Heilongjiang Province and Inner Mongolia Autonomous Region, Heilongjiang Daxing'anling Region Administrative Office, and Inner Mongolia Daxing'anling Forestry Management Bureau (FMB) within the scope of their duties (see further details under "Institutional context" below).

27. There are four kinds of PAs in the Daxing'anling region - National Nature Reserves (NNRs), Provincial Nature Reserves (PNRs) and Prefectural (County) Nature Reserves, as well as Wetland Parks. NNRs must be approved by the State Forestry Administration (SFA) and Ministry of Environmental Protection (MEP) and are generally allocated higher levels of funding and staffing and have an annual reporting duty to the SFA. The designation of NNR status allows the PA to access funding resources from the central government (as well as provincial and/or local governments) for its management. Any reserve infrastructure development work planned inside NNRs requires central government permission. Central government funding is limited and usually only available for reserve 'development' or for specific 'projects'. The burden of additional construction and on-going (regular) operations falls primarily on local sources. This poses a major problem with the decline in forestry revenues. NNRs are designated as such, based on their global and national importance. The provincial governments can make legislation and their own special management arrangements for provincial PAs but there are no differences between NNRs and PNRs in terms of permissible land and resource use inside such areas.

28. In order to conserve its biodiversity and ecological functions, an impressive network of 43 forest and wetland PAs covering an area of 3.1 million hectares has been established across the Daxing'anling Landscape with 33 PAs (1.8 million ha.) in the Heilongjiang section and 10 PAs (1.3 million ha.) in the Inner Mongolia section (Table 2, Annex 5 and Figure 3). The oldest of these are the A'lu PNR and Hanma NNR established in 1955 and 1958 in Inner Mongolia, but the most remarkable developments in terms of additions and up-gradings have occurred in the last decade. This PA network now covers 16.6% of the total area of the Daxing'anling Landscape and comprises 7 National Nature Reserves (NNRs), 9 Provincial Nature Reserves (PNRs), 20 Prefecture-level Nature Reserves and 7 Wetland Parks. NNRs cover 951,999 ha. (30.7% of the PA area), PNRs cover 1,259,340 ha. (40.6%), prefectural-level Nature Reserves cover 758,215 ha. (24.5%) and Wetland Parks cover 130,746 (4.2%). The total area of wetlands included in these PAs is 571,523 ha., which represents 18.4% of

the total area of PAs, and 20.9% of the estimated area of wetland habitats in the Daxing'anling landscape. In particular, the Nanwenghe NNR has been added to the Ramsar Convention's List of Wetlands of International Importance, and the Nenjiangyuan NR and Humahe Wetland were listed as wetlands of National Significance, and included in the priority wetland conservation list of the "China National Wetland Conservation Action Plan".

Table 3: Overview statistics for the Daxing'anling protected areas network (July 2012)

Type	Protected Grade	Heilongjiang section in Daxing'anling Landscape			Inner Mongolia section in Daxing'anling Landscape			Total		
		Number	PA Coverage (ha)	Wetland Coverage (ha)	Number	PA Coverage (ha)	Wetland Coverage (ha)	Number	PA Coverage (ha)	Wetland Coverage (ha)
Wetland PAs										
	NNR	3	464,062	119,715	0	0	0	3	464,062	119,715
	Provincial (Ministry)-level NR	0			3	192,619	35,739	3	192,619	35,739
	Prefectural-level NR	12	479,365	158,996				12	479,365	158,996
	Wetland Park	5	66,273	31,855	2	64,473	23,486	7	130,746	55,341
	Sub-total	20	1,009,700	310,566	5	257,092	59,225	25	1,266,792	369,791
Forest and other types of PAs										
	NNR	2	256,062	42,523	2	231,875	43,400	4	487,937	85,923
	Provincial (Ministry)-level NR	3	261,000	37,104	3	805,721	30,739	6	1,066,721	67,843
	Prefectural-level NR	8	278,850	47,966	0			8	278,850	47,966
	Sub-total	13	795,912	127,593	5	1,037,596	74,139	18	1,833,508	201,732
Total		33	1,805,612	438,159	10	1,294,688	133,364	43	3,100,300	571,523

29. Despite this remarkable progress there are important gaps in coverage, since establishment of the network was not based on an effective regional protection plan or the distribution of wildlife habitats and species. Some rare and endangered species in Daxing'anling Region are not effectively protected by the present PA network. In addition, deforestation, forest fire, construction and other factors, are causing continued decrease of the forest and wetland area, and fragmentation of wildlife habitat. The global climate change context is also exacerbating the challenging situation for rare habitats and species in the region. Therefore, better assessment and planning of the conservation priority areas as well as increasing of the PA area especially those that could bridge the existing PAs, will assist biodiversity and ecosystem protection as well as enhancing the capacity of adaptation to climate change.

Figure 3: Map of the Daxing'anling's Protected Areas (July 2012)



INSTITUTIONAL CONTEXT

30. Governance in the Daxing'anling region is unique insofar as it is co-managed by the State Forestry Administration (SFA) and the Governments of Heilongjiang Province and Inner Mongolia Autonomous Region. Until recently, even civic and social functions including education and public health care were under the Heilongjiang and Inner Mongolia

Daxing'anling Forestry Management Authorities (FMAs) under the SFA. However, part of these functions has been transferred to the Heilongjiang and Inner Mongolia Provincial Governments. The FMAs with 121,482 full-time employees in total wear two hats: a group of subsidiary institutions responsible for forest protection, including establishment and management of the nature reserves; and a group of subsidiary enterprises responsible for utilisation of forest resources including commercial forestry operations (see detailed organisation structure charts in the baseline report). SFA, as the national competent authority in charge of forestry in China, is responsible for managing the forest and woodland resources of the commercial arm of the FMAs, assigning the annual forest management, production and afforestation plans and land use quotas, giving instructions to the FMAs in terms of forest management, and assigning the forestry development projects such as the National Natural Forest Protection Programme. The government is currently in the process of fully separating the forest protection and commercial forestry functions of the FMAs. The commercial arm of the FMAs (Forestry Management Corporations (FMC) will be turned into an independent state owned enterprise, leaving the nature reserve planning and management functions to the FMAs. Currently, the FMA's and the FMC's both in Heilongjiang and Inner Mongolia share one board.

31. The planning and management of PAs in the Daxing'anling region are under the responsibilities of the MEP, SFA, the governments of Heilongjiang Province and Inner Mongolia Autonomous Region, and the offices of the two Inner Mongolia and Heilongjiang section FMAs, within the scope of their duties. The arrangements differ, in a rather complicated way, for each type of PA, as follows:

- Plans for NNRs are submitted by local FMBs through the relevant FMA (Heilongjiang Daxing'anling Forestry Corporation or Inner Mongolia Daxing'anling FMB) to the SFA, and are then issued to MEP for approval. The daily operation and management of the NNRs is conducted by Heilongjiang Daxing'anling Forestry Corporation or Inner Mongolia Daxing'anling FMB in conjunction with the local FMBs.
- Plans for PNRs are proposed by the relevant FMBs through their FMA (Heilongjiang Daxing'anling Forestry Corporation or Inner Mongolia Daxing'anling FMB) to the respective provincial governments for approval. Heilongjiang Daxing'anling Forestry Corporation or Inner Mongolia Daxing'anling FMB, supported by their local FMBs, are in charge of the daily operation and management.
- Plans for prefecture-level NRs are proposed directly by the relevant FMB of the nature reserves to the relevant FMA office (Heilongjiang Province Daxing'anling Administrative Office or Inner Mongolia Daxing'anling FMB) for approval; the relevant local FMB is in charge of the operation and management.
- Plans for National Wetland Parks (NWP) are submitted by the relevant local FMBs through their FMA (Heilongjiang Daxing'anling Forestry Corporation or Inner Mongolia Daxing'anling FMB) to the SFA for approval. The operation and management is undertaken by the relevant FMA (Heilongjiang Daxing'anling Forestry Corporation or Inner Mongolia Daxing'anling FMB) with the support from their local FMBs. Plans for local-level wetland parks are issued to the relevant FMA (Heilongjiang FMB or Inner Mongolia Daxing'anling FMB) by the local FMB that is also responsible for operation and management.

32. Both FMAs have Master Plans on Wildlife Conservation and Nature Reserve Development (Heilongjiang section for 2006-2030, and Inner Mongolia section for 2004-

2020), developed by the Academy of Forest Inventory and Planning with SFA (AFIP-SFA) (and with North-eastern Forestry University in the case of Inner Mongolia). These provide a useful perspective on the long-term objectives for conserving wildlife and expanding the nature reserves, and contributing to regional objectives of sustainable use. However, the plans need reviewing on the basis of the changed socio-economic situation, and information availability as well as to provide more practical guidance for the short-term. Implementation has also been limited by insufficient budget, staff, equipment, and communication as well as transportation facilities.

33. Each NR requires a FMB which is responsible for developing master plans for the development of the site, focusing in particular on securing budgets for developments, staff (full-time and hired), operations and other projects. Each relevant FMB posts field staff in field/PA offices (at county or sometimes village level) and must make appropriate negotiations with local communities to recognize and demarcate the boundaries and zones of the NR. They must also establish the land or resource uses permissible in the experimental zones (see “policy and legislative context”, below).

34. Most land management and conservation rights in China belong to the government, including nature reserve authorities, which in the case of the Daxing’anling is the SFA and its two FMAs. Local communities therefore lack the authority to engage directly in conservation, and the only options are through forms of collaborative management such as community co-management or various forms of contract conservation. These are relatively poorly developed as yet in the Daxing’anling region. One example is the co-management agreements developed with farmers in the Duobuku’er NNR in Heilongjiang province to assist with fire-fighting activities. Elsewhere, co-management is largely limited to community volunteering on an informal basis.

POLICY AND LEGISLATIVE CONTEXT

35. All nature reserves in China are established under one administrative rule ‘Regulations of the People’s Republic of China on Nature Reserves’ (1994), with other aspects of biodiversity conservation covered for example in the Forest Conservation Law, Wildlife Conservation Law. To date, no consensus has been reached concerning the new PA legislation which was drafted recently. This results in a situation whereby the forestry department and other departments operate their conservation areas as they see fit, without uniform criteria for PA establishment, management standards or operational guidelines. This lack of legislation hinders effective management of the PA system.

36. The ‘Regulations of the People’s Republic of China on Nature Reserves’ allows for only one PA category (Nature Reserves). These can be established for three main objectives – wildlife protection, ecosystem protection or natural monument protection.

37. These Regulations are very restrictive and rarely match actual land-use patterns on the ground. Three zones are permitted: 1) the *core zone* with no use, habitation or interference permitted, apart from limited observational scientific research; 2) the *buffer zone*⁴, where some scientific collection, measurements, management and research are permitted; and 3) the *experimental zone*, where scientific investigation, public education, tourism and raising of

⁴ The term buffer zone in this context is confusing. Maybe a better term would be ‘protected buffer’ to be distinguished from ‘external buffer’ which is an area external to the NR and thus not formally protected, although requiring some limits on development options adjacent to a NR.

rare and endangered wild species are permitted.⁵ An external protection zone (which is a buffer zone in the usual international meaning of that term) may also exist, where the normal range of human activity is allowed, with restrictions only if those activities have damaging effects inside the NR.

Table 4: Current Management Prescriptions for Different Zones within NRs

Management Zone	Purpose	Management Prescriptions
Core zone	To protect intact ecosystems where rare and endangered animals and plants are concentrated	<ul style="list-style-type: none"> ▪ No entry, except with special permission accorded for scientific studies. ▪ If necessary, people living inside are to be resettled. ▪ Construction of production facilities is prohibited.
Buffer zone	Area surrounding the core zone	<ul style="list-style-type: none"> ▪ No tourism, production or trading activities. ▪ Entry permitted on special permission for non-destructive research, collection, and educational purposes ▪ Construction of production facilities is prohibited.
Experimental zone	Area surrounding the buffer zone	<ul style="list-style-type: none"> ▪ Visiting and tourist activities allowed with special permission. ▪ Tourism promotion should not damage or pollute original landforms and scenery. ▪ Visiting and tourist projects that violate the general guidelines of NRs are prohibited ▪ Construction of production facilities that may pollute the environment or damage the natural resources or landscapes prohibited. ▪ Existing facilities are required to reduce and control pollution discharge to be within prescribed standards.

38. The legal aspect of animal and plant protection is highly relevant to biodiversity conservation. China has at least 25 regulations and 4 laws in this regard, administrated by multiple departments. The Forestry Department is responsible for the implementation of laws on wildlife protection, while the departments of agriculture, customs, commerce and public security are responsible for the rest. There are separate legislations regarding wild animals and plants: the wild animal protection only focuses on the conservation of species but neglects habitat protection, while biodiversity conservation stresses ecosystem integrity protection. The decentralized management model is fundamentally inconsistent with requirements for the integrated protection of biodiversity in China.

39. This gap in *national* legislation and coordination can potentially be compensated by *local legislation*. Provinces can enact local regulations tailored to specific needs that do not contradict national legislation. The provincial governments can make legislation and their own special management arrangements for provincial PAs but there are no differences between NNRs and PNRs in terms of permissible land and resources use inside such areas. Both Heilongjiang and Inner Mongolia have enacted provincial level regulations for wetlands, the one in Heilongjiang (2004) being the first such regulation for China. In addition, each NNR generally has its own management regulation. However, reviews of shortcomings of the existing regulations have shown that they are not specific or comprehensive enough to guide nature reserve management in practice, including issues such

⁵ All three zones would fall under the definition of strict nature reserve (1a) of IUCN's classification of PA categories. None of the zones, according to IUCN's strict nature reserve classification, would allow even sustainable extraction of natural resources such as firewood, medicinal plants, game hunting, fishing or grazing.

as habitat restoration or species conservation, community participation in planning or management, regulation of eco-tourism, control of alien invasive species, or measures to address climate change. Such a regulation needs to be formulated and approved.

40. Two major policy changes are highly relevant to the current and future status of the Daxing'anling Landscape. The first is the National Natural Forest Protection Program (1998-2020), which was born as a result of the impact of decades of significant deforestation and resulting ecological disasters, including floods (and droughts) in the Songhua and Nen rivers downstream of the Daxing'anling region, as well as in the Yangtze basin. This programme, for which the Daxing'anling is a target area combines re-afforestation efforts (including of agricultural lands) and logging bans or limits, to restore forest cover, and has the overall target of increasing China's forest cover from 20% in 2008 to 26% by 2050. The 2000–2010 plan had the ultimate aim of restructuring the state forest sector so as to place greater emphasis on the economic and environmental sustainability of forest resource management, both for timber production and ecological conservation. For northeast China and Inner Mongolia (including the Daxing'anling), key tasks/goals include the following: reduce harvests by 75.15 million m³/year; implement effective protection and management of 495 million mu (33 million ha) of forest area; appropriately reposition or lay off with settlement 48,400 redundant forestry workers; and shift the production structure for forestry enterprises to make them more environmentally and economically sustainable. To implement these goals, the NNFPP stipulates the payment of subsidies by the central government to participating bureaus and local forest authorities for various environmental and social tasks and redundancies. This programme has already had a major impact on reducing the pressure from forestry in the region with a resulting improvement in forest ecology, and has also boosted livelihoods. Other eco-compensation funds are also being trialled, such as the "Central Financial Compensation Measures for Wetland Management", for which Nanwenghe NR received 3 million RMB for wetland compensation in 2011.

41. The second important policy for the Daxing'anling region is the "*Master Plan of Ecological Conservation and Economic Transition in Daxing'anling and Xiaoxing'anling Forested Regions (2012-2020)*" issued by the State Council. This key national policy document has the objectives of increasing ecosystem functions and developing an "ecosystem-centred" regional economy for local development. The government is expected to spend over US\$ 900 million for implementation of this plan. There are four main pillars for the implementation strategy; 1) strengthening ecological protection by establishing a sustainable forest management system reducing the timber harvest, forest rehabilitation and afforestation, and strengthening the nature reserves for wetland and forest conservation; 2) optimizing the spatial distribution of different land uses including forest farms, nature reserves, industrial areas and settlements etc.; 3) diversifying economy through actively developing new nature-based industries such as tourism and non-timber forest product industries including mushroom, vegetables and Chinese medicines, while better controlling mining development; and 4) promoting the social development in the forest areas with improved infrastructure for increasing social welfare. The main targets of the master plan include: (i) increase in forest areas by 1.7 million ha, with an increase in timber volume by 400 million m³, which is 30% of the increased volume of the country; (ii) expansion of nature reserves to account for 18% of the Daxing'anling region; (iii) increased value of non-timber production accounting for 80% of regional increased GDP; (iv) increase in the GDP per capita to 30,000 RMB and rural per capita net income to be 10,000 RMB or more; (v) unemployment rate is decreased to less than 4%; (iv) 100% drinking water supply. In addition, the Central and local governments are investing approximately US\$ 4.25 million

between 2011 and 2015 to build infrastructure and facilities for selected nature reserves. Furthermore, the government is injecting over US\$ 5 million special project funding between 2011 and 2015 for wetland and forest rehabilitation, strengthening law enforcement and promotion of ecotourism within selected nature reserves. Although the government investment in the nature reserves in the Master Plan implementation is considerable, there has been little progress to improve the PA network in the Daxing'anling landscape as a whole by targeting barriers (eg capacity, finance) at different levels of PA administration – at SFA, province, local governments and site levels.

42. The overall impact of the ecosystem-friendly policies is clearly visible in the 12th Five Year plans for Inner Mongolia and Heilongjiang province which show a high degree of compatibility with the objectives of this GEF project⁶.

THREATS, ROOT CAUSES AND IMPACTS

43. The globally significant biodiversity and ecosystem functioning of the wetlands and forests of the Daxing'anling Landscape has already been severely impacted by historical logging activities, and is under further threat from a number of factors. Compared to the pre-exploitation baselines, the southern edge of Daxing'anling has retreated by more than 100 km northward, largely due to the expansion of agriculture which followed the clear-felling of the forest. Permafrost is retreating both as a result of climate change and reduction of forest cover which provided an insulation layer. Ecosystem functions and services have also been degraded, resulting in the increased frequency of natural disasters such as downstream floods, droughts, forest fires and pests and disease occurrence. There is increasing pressure from infrastructure development (particularly roads), and increases in the number of visitors. Some rivers are polluted from urban wastewater discharges. Unusually the wetlands of the Daxing'anling are little threatened by upstream water abstraction or dams due to the limited agricultural developments and poor topography for dam-building. The main threats to wetland biodiversity and ecosystem functions are:

44. **Habitat conversion and ecosystem degradation:** The massive and unsustainable clear-felling of the vast Daxing'anling forests (and forested wetlands), particularly during the second half of the last century had enormous (but largely unmeasured) impacts on the rich biodiversity and important ecosystem services provided by this critical upstream water source area. The result was loss, degradation and fragmentation of habitats and associated species, and loss of biological corridors for migratory animals. Despite these enormous impacts, until the last 10-15 years the FMAs continued to operate logging activities as the main source of local livelihoods and revenue, even to the extent that the area of nature reserves shrank from 15 to 13% at one point in the past to maintain the forestry industry. This "historical threat" is now much reduced since most of the exploitable timber has gone, and policies are now promoting sustainable forestry. The main issue is to ensure that the livelihood options and activities that replace forestry in the longer term do not bring further environmental degradation. This requires the FMAs who are responsible for the area to have a much greater attention to the impacts of activities such as tourism, mining, agriculture, industry and infrastructure – and particularly planning – not only with respect to the PAs but also to the wider landscape on which the biodiversity and ecosystem services also depend.

45. As much as a half the wetland area in Daxing'anling region has been lost in recent decades, mainly as a result of agricultural development which followed the clear-felling of

⁶ Review of China National-Provincial Development Sector Planning and Implementation Process. Dr Guanchung Lei, 2012.

the forests. Agricultural encroachment onto wetlands, which provide flat and fertile soils, has been prominent especially in the southern areas of Daxing'anling where the southern edge of the Daxing'anling forests have retreated northward by over 100km. This presents not only a threat to wetlands habitats and species and loss of surface water retention and regulation, but also it causes the permafrost to melt which increases the probability of anaerobic release of methane gas. Further northward expansion of agriculture is constrained by the growing season, but this could change in the long term as a result of climatic changes.

46. Although there are some small goldmines in the area, these are closely regulated and further applications are not permitted. However, applications for sand/gravel extraction from rivers and for quarries are increasing rapidly in support of new construction. For example the Land Resources Management in Daxing'anling Administrative Authority in Heilongjiang Section approved an increase in mining certificates from 7 in 2008 to 30 in 2011.

47. Overexploitation of natural resources: As described above, huge demand for timber elsewhere in China resulted in forestry practice in the region that were totally unsustainable, leading to severe land degradation, overexploitation of timber resources and damage to the forested wetland systems – with knock-on impacts on hydrology and ecosystem services such as flood regulation. In the Heilongjiang portion of the Daxing'anling region, the harvestable stock of mature forests has dropped from 460 million m³ in pre- exploitation times to 21 million m³ in 2008 (a 95.5% decline). Following dramatic policy changes under the National Natural Forest Protection Programme since 1998 providing strict controls on forestry, as well as the large-scale extension of the PA network across the area, the remaining forests and forested wetlands have begun to recover (although there are still regularly cases of illegal logging). However, the forest age structures are seriously unbalanced and lack the natural heterogeneity that many species require. Of the State-owned forest in the Heilongjiang Province section, the young-and middle-aged forests account for 85%, resulting in a 50% decrease in average forest stock volume. Yet to meet the needs of both local governments and livelihoods of foresters, even some of the fast growing middle-aged forests are being harvested. As a result of these changes, many species which might be expected to support large populations over this vast area remain at very low levels (eg. brown bear, moose, lynx).

48. The meagre incomes from forestry have forced local populations to seek alternative incomes, in particular from the harvest of non-timber forest products such as berries, fungi, wild vegetables, and medicinal herbs. Whilst many of these activities can be carried out legally and sustainably even within PAs, the increasing pressures may be becoming unsustainable and pose a threat to several species. In addition, although hunting is banned throughout the region, the illegal taking of wild animals such as deer or bears for meat or traditional medicines from animal parts may be a significant contributor to the unexpectedly low population densities of several species.

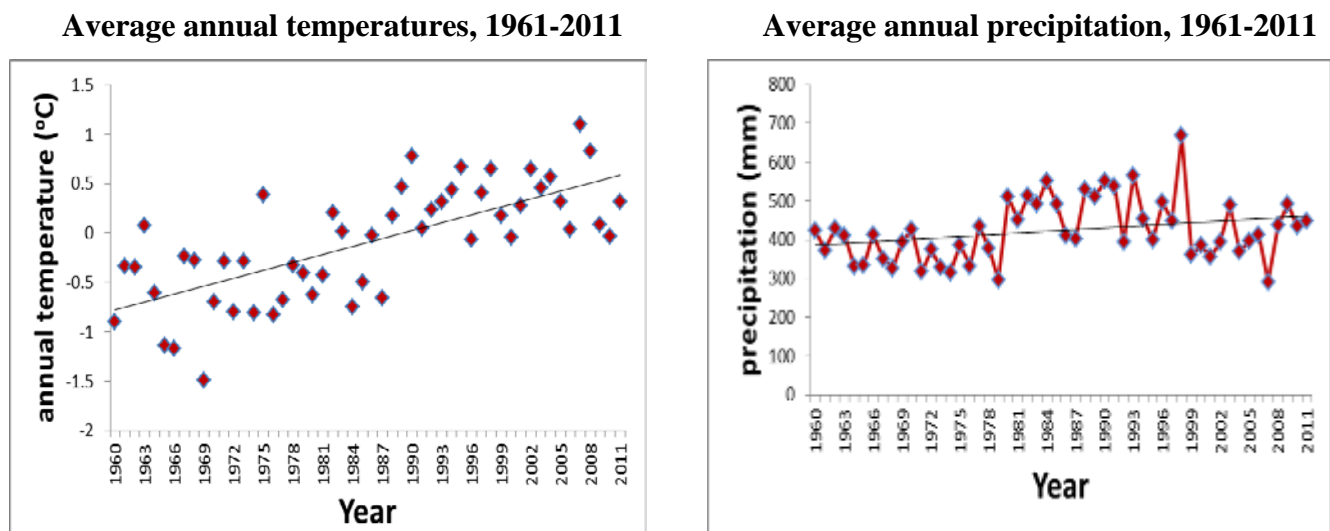
49. Chaotic development: China is the fastest growing economy in the world, and despite its relative remoteness, Daxing'anling is on the cusp of significant economic development with potential in expansion of wood processing industries, processing of non-timber forest products (mushrooms, berries, etc.), and infrastructure development (future oil pipeline from Russia, road bridge to Russia, mines, railways, etc.). Construction of roads (and associated quarries) is already causing loss and fragmentation of habitats and presenting barriers to migratory species, even within some protected areas. This is a particular problem for the wetland systems in the valley bottoms where most construction occurs, and which can be severely affected by changes to their hydrology. While the local human population remains relatively small, there are some significant impacts on water quality and aquatic biodiversity from the few upstream towns (eg. Songlin, upstream of the Duobuku'er NNR) which lack

sewage treatment facilities and are polluting the rivers (although many rivers across the Daxing'anling region remain in very good condition). Furthermore, the aspiration to become a significant tourism destination poses further threats to this sensitive area by increasing the seasonal population, increasing the demand for more roads and infrastructure, bringing potential for more wastes and pollution and increased human disturbance which could cause significant damage to biodiversity if not managed effectively.

50. Forest fire: Forest fire (including over the forested wetlands) is a major threat, particularly in the spring and summer months, with occasional large scale fires such as the one in 1987. Many fires are caused by natural events such as lightning strikes, and are important in creating habitat diversity; however up to 70% of fires are caused by human activities such as the discarding of cigarettes or machinery fires. Fire not only burns forests and peat soils, but also kills wildlife. Trees, such as Larch, in this cold environment require over 100 years to reach maturity; however as a result of previous fires significant areas remain less than 20 years old.

51. Climate change: There is already evidence of long term trends in climatic parameters in the Daxing'anling region: in the past 50 years, the average annual temperature has increased linearly by about 2°C, while the annual precipitation fluctuated from 300 to 500 mm with some increase (Figure 4). Similarly, there is a much increased frequency of extreme weather events such as heat waves, periods of extreme cold and even sand storms. These trends are likely to be a result of the drivers of climate change, compounded by reductions in forest cover as a result of habitat conversions. Climate changes will cause redistribution of major ecological zones across the face of China and adjustments in species distributions, migration patterns and phenology. For example, predictions for the Daxing'anling include a gradual replacement of *Larix* and other conifers with broadleaved trees such as *Quercus mongolica*⁷. Impacts on sensitive species may be particularly severe in this upland area, since species and habitats will not be able to adapt by altitudinal shifts in distribution.

Figure 4: Long-term climatic trends in Daxing'anling, 1961-2011



⁷ Source: Zhou X. F., Zhang Y. D., Sun H. Z., Chai Y. X. and Wang Y. H. 2002. The Effect on Climate Change on Population Dynamics of *Quercus mongolica* in North Greater Xing'an Mountain. *Acta Ecologica Sinica*, 2002, 22(7): 1035-1040.

52. Climate changes dramatically impact wetlands by affecting seasonality of water flow, water temperature, pH and oxygen content. These in turn impact the biota including suitability of sites for migratory species. There is already evidence of thawing of the Daxing'anling's extensive permafrost layer, resulting in increased GHG emissions and as yet unknown impacts on hydrology and wetlands. Current predictions include a substantial reduction and northward retreat of wetland mire habitats⁸ as well as increased frequency of forest fires⁹ and disease outbreaks due to increasing stress on plants (particularly trees because of their longevity and inability to move) and animals. Indeed, during recent decades there has been a dramatic increase in the area of forest affected by pests such as budworms, tent caterpillars, pine gall moths, pine needle blight, stem borers, other insects and rodents – posing a great threat to the local forest resources. The pest occurrence area in the region increased from 624,893 ha. in the “9th Five Year Plan” period to 1,254,427 ha. in the “10th Five Year Plan” period.

53. The threats to biodiversity in the Daxing'anling region are driven by a series of underlying root causes. Historically, massive demand for timber for construction and other purposes from the rest of China led to the forests being exploited in a totally unsustainable way. This resulted in ecosystem degradation of forest and wetland habitats of the Daxing'anling which serve as one of the most important water storage systems in the country. While this threat has now receded following more eco-friendly policy changes, aspirations for alternative sources and higher levels of income are placing new pressures on wetland biodiversity in the PAs through the harvest of non-timber forest resources and the development of eco-tourism. In addition, outside the PAs many threats are rooted in development initiatives with cross-sectoral government involvement. These include agriculture and animal husbandry development, road construction without consideration of ecological needs, industry, mining and tourism infrastructures. The specifics of the threats and their underlying causes vary with locality and ecosystem type. Further details are provided in the baseline report.

LONG-TERM SOLUTION, AND BARRIERS TO ACHIEVING THE SOLUTION

54. The long-term solution to the above issues proposed by this project is to strengthen the management effectiveness of the PA system in the Daxing'anling Landscape and mainstream the PAs and biodiversity conservation into regional development plans so as to safeguard the region's globally significant biodiversity and essential ecosystems. This will not only ensure the survival of representative and threatened species and habitats, but will also secure a range of sustainable livelihood opportunities and vital ecosystem services such as protection of the water source of NE China's major river, the Heilongjiang. Such a solution should be underpinned by the following principles:

- Evidence and understanding of the vital role of biodiversity and PAs in the socio-economic development of the area.
- Integration of the PA system and its objectives into the regional and sectoral planning processes and their implementation.

⁸ Source: Liu H. J., Hu Y. M., Bu R. C., Liu J. T. and Leng W. F. 2009. Impacts of Climate Changes on the Landscape Patterns of Potential Mire Distributions in Northern Great Khing'an Mountains. *Advances in Water Science*, 2009, 20(1): 105-110.

⁹ Source: Zhao F. J. Climate Changes on Natural Fires in the Daxing'anling Forests. Ph. D dissertation.

- Adjustment and expansion of the PA network to address biodiversity conservation needs (threatened species, migration corridors etc.) yet also allow for adaptation and range changes for species facing a rapidly changing climate. Climate change will place additional pressures upon native wildlife as farming and other activities may become possible over a greater area of the landscape.
- Strong institutional, systemic, financial and individual capacity within the PA system to enhance management effectiveness in accordance with clear standards.
- Targeted measures to conserve or restore biodiversity underpinned by a robust biodiversity and ecological health monitoring system to inform management.
- Sustainable livelihood opportunities based on a rich and functioning ecosystem, such as harvest and processing of forest products, ecotourism, employment as PA staff or paid community co-management workers which contribute to people's welfare and the regional economy.
- Greater participation of civil society in PA governance and management

53. The two Daxing'anling FMAs have made progress in recent years towards meeting these principles, particularly through new PA designations, enhancements to the PA infrastructure and greater public support for biodiversity conservation. Despite these advances, a number of important barriers continue to prevent the government from achieving the above vision on its own. These can be grouped into three categories: (i) the disconnect between PA planning and management and regional development and sectoral planning process with insufficient coverage of PAs; (ii) Inadequate capacity and resources for PA network management and biodiversity conservation; and (iii) weak site level management.

Barrier 1: Disconnect between PA planning and management and regional development and sectoral planning process with insufficient coverage of PAs

53. *Limited mainstreaming of biodiversity and PAs:* Effective biodiversity conservation across the Daxing'anling Landscape is hindered by a lack of mainstreaming of biodiversity and the PA system and its objectives into the development and sector planning processes. The provincial 5-year plans and sector plans are key drivers of land-use and development. This makes it critical to ensure that future development plans include clear principles and programmes for conserving biodiversity and enhancing effectiveness of the PA system. This means that biodiversity must be fully mainstreamed into the programmes of each department within the FMAs, but also where appropriate with provincial government departments concerned with the delivery of ecosystem services originating in PAs, such as the Water Resources Department, Tourism Department, Development Reform Commission etc.. At the same time, the FMA budget allocations provide the crucial financing source for PA management, covering the personnel and operational costs, which are the foundation for PA management, while additional national budget appropriation (only applicable to national NRs) is used only for specific project and infrastructure activities. Without proper understanding of the values of biodiversity conservation and integration of PA system management in development and sector plans, the PAs will remain under-funded. Furthermore, without proper mainstreaming in development planning process, further proposals to expand the PA network may only cause friction and undermine the integrity of the expanded PA network. Additionally, the recent expansion of the PA network has been mainly driven by the need to protect forests from irrational and unsustainable forestry practices. Further expansion needs to be aimed to conserve representative natural forests and

wetlands and threatened species, to enhance ecosystem resilience and connectivity between PAs as well as to enhance ecosystem health, rather than simply nurturing timber stock for future exploitation.

55. *Weak coordination.* Despite the laudable objectives of the *Master Plan of Ecological Conservation and Economic Transition*, the development and fiscal planning framework remains too sector-oriented, and landscape level initiatives are hindered by the “hard” boundary between the two province-sections. There are no existing inter-sectoral coordination mechanisms for promoting and mainstreaming biodiversity conservation within either Heilongjiang or Inner Mongolia sections, nor between the provincial sections for the entire Daxing’anling landscape. Coordination and cooperation between different government agencies responsible for PAs, forestry, agriculture, livestock, environmental protection, tourism and water resources etc. is inadequate. With the ongoing separation for the forestry function as well as social service provision function from the Daxing’anling FMAs, and the increased jurisdiction of provincial and local authorities over the Daxing’anling Landscape, there is an urgent need for establishing better mechanisms for joint planning and close inter-sectoral coordination in order to realise the green economy envisioned in the master plan. Currently there is no tool nor mechanism to safeguard the integrity of biodiversity and the PAs from the planned expansion of various non-forestry sectors to diversify the local economy, such as tourism, agriculture and mining, as well as infrastructure development including water resource and energy development schemes. Without strong coordination there will be increasing conflict between sector objectives, increasing pressure on the PAs and the biodiversity across the whole landscape.

56. *Inappropriate sector practices:* Uncoordinated and inappropriate developments that do not take account of ecosystem-based and sustainability principles represent a major threat to forests, wetlands and biodiversity conservation across the Daxing’anling Landscape. There is an urgent need to enhance the official measures and standards for infrastructure development and operation and other activities both within and outside the PAs, to ensure that the 5 Year Development Plans do not include projects and programmes that cause adverse impacts on PA management and on biodiversity and ecosystems. The lack of adequate measures (eg for roads development and agriculture) has led to activities with negative biodiversity impacts and clashes amongst different sectors. Although tourism is viewed as one of the most promising industries for regional development, there is no successful high value / low impact model for PA tourism development/operation, and tourism development activities within the PAs remain uncoordinated and ad-hoc. With the anticipated accelerated economic development and the reduction of influence of the forest management sector over governance decisions in the region, it is paramount that individual PAs are strengthened to fulfil their functions for biodiversity conservation and to be able to meaningfully partake in the development discussions and actions in the region. PA performance in terms of conserving biodiversity is also difficult to assess as PAs do not have management plans or good ecological monitoring programmes.

Barrier 2: Inadequate capacity and resources for PA network management and biodiversity conservation

57. *Inadequate legal basis and systemic capacity for PAs and biodiversity conservation.* Effective PA management in Daxing’anling remains hindered by a weak national legal basis for PA establishment and management, making them vulnerable to pressure from other

sectors with strong sector laws¹⁰. The Nature Reserve Regulations (1994) provides for the process of establishing NRs at different administrative levels, setting broad criteria for the NRs and indicating possible and prohibited activities in the three zones¹¹, but the measures are outdated and do not provide adequate flexibility or guidance in terms of zoning and management options. The result is that most PAs are managed in ways that are contradictory to both the word and spirit of those regulations. Daxing'anling as a special administrative region has an opportunity to develop region-specific regulations and policies for PA management that are appropriate for local circumstances and conducive for PA management in the boreal forests and wetlands and unique transitional zones. Whilst some progress has been made on this through the enactment of wetland regulations in both provinces, the lack of experience in modern best practice approaches to PA management means these now need improving and supplementing with regulations specific to nature reserve / PA management, biodiversity conservation, human use, community participation and ecosystem functionality. Improved management standards and guidelines for each type of PAs would also be needed.

58. Weak institutional capacity for biodiversity conservation. The current institutional capacity of the two Daxing'anling FMAs to deliver biodiversity conservation through multiple PAs and to plan and manage landscape management to conserve beyond the PA boundaries, is inadequate as a result of this PA network being borne from enterprises that specialise in forestry. Although there are over 1,200 staff and a US\$ 7.0 million operational budget working for PA management in the two FMAs, staff have been trained mainly as foresters and forestry workers rather than as PA managers and conservation officers. Few have academic qualifications. For example in Inner Mongolia forest area in 2011, only 4.2% of the 2,451 staff had a Bachelor's degree, and 0.1% a Master's degree. In Shuanghe NNR in Inner Mongolia none of the 41 staff have expertise in biodiversity conservation, PA management or ecotourism. The staffing structure and competency standards are largely inadequate to support an effective PA cluster and the remuneration level of the PA staff is extremely low with an average of US\$ 130-160 per month paid to field staff. None of the PAs have management plans (as compared to master plans, which focus instead on questions of infrastructure and financial investment rather than necessary actions for conservation management).

59. Inadequate financing: Inadequate financing and suboptimal allocation of resources also hinder effective PA management across the Daxing'anling region. Financial assessments during the PPG reveal that actual annual government expenditure on the PA system (US\$ 10,280,194) is only 20.4% of what is considered to be needed for basic operation of the PAs (US\$ 50,512,995) and only 11.2% of what is required for optimal operation (US\$ 92,093,385). Apart from those NNRs supported by State finance for infrastructure, the management and operation costs for all PAs as well as infrastructure construction costs for province and prefecture level PAs have to be borne by the forestry enterprises. The underlying cause of this is the poor awareness of decision-makers and the general public of the social and economic values of biodiversity and ecosystem services provided by the Daxing'anling Landscape and its PAs, the rarity of such special places and how the loss of these would economically affect the economy and peoples' livelihoods. At the same time,

¹⁰ In China, laws are formulated and issued by the National People's Congress, the highest order in China's legal system. Regulations are formulated and issued by the State Council and provincial People's Congress, or some people's congress of autonomous prefectures and municipalities. Regulations are less powerful than laws. Decrees can be issued by government at different levels through departments.

¹¹ Three management zones in the Regulations are: core zone (no entry except on special permission accorded for scientific studies), buffer zone (no tourism or trading activities and no construction of production facilities) and experimental zone (visiting and tourist activities allowed, construction of facilities are possible as long as it does not have negative effects on biodiversity.)

there is only a poor understanding of actual management needs to safeguard the natural capital of the region and no real basis to determine how much effective PA network management would cost. As a result, the government budget for actual operation of the PA cluster is very small (estimated US\$ 480,000 per year). For optimal level of operation/performance, it is proposed that (in addition to an extensive staff training programme (see below)) this needs to be at least doubled by the end of the project, since the existing staff are not currently able to operate efficiently. Having more funds available for field equipment and operational activities such as community engagement, patrolling and monitoring is expected to deliver a step-change in management effectiveness. “Development” funds are not guaranteed and mostly come from different central government programmes such as the National Natural Forest Protection Programme or the National Wetland Restoration Programme, etc.. These funds do not cover staff salaries, which are mostly covered by the provincial FMBs. In addition, investment is extremely skewed towards National NRs.

60. Knowledge and information management. Due to the relatively recent focus on development of the PA network, information and tools for biodiversity monitoring and PA management are limited, and the quality of the currently available data is poor. Due to lack of funds and expertise, very few surveys or monitoring programmes are conducted by PA personnel and the status and distribution even of IUCN Red List species is not known. More knowledge has been accumulated through research by academic institutions and government departments, but it is not easily accessible or in a harmonised or up-to-date form that can be used by decision makers and PA managers for management of natural ecosystems inside and outside PAs, as well as for communications. For example, climate change impacts are already being recorded but this information has not yet contributed to effective plans, policies or management actions, such as delineation of PA zones or planning for future range shift needs of species. Whilst in Heilongjiang, the Conservation Department as well as each NR already have their own web pages, in Inner Mongolia the information system only covers fire control and forest resources. Biodiversity information is lacking throughout. Due to limited capacity of the staff and lack of funds those websites that do exist cannot be updated regularly and do not provide adequate information on the NRs to interested parties. In conclusion, the information management about the individual protected areas, and the system as a whole, needs greatly improving and making more widely available to different users – locally, regionally and nationally.

Barrier 3: Inadequate site level management capacity for biodiversity conservation

61. Individual capacity barrier: Currently the PAs in the Daxing’anling region are characterised by inadequate site level management for biodiversity conservation. Despite the seemingly large investment of the government in the nature reserve cluster as described earlier, it is mainly for sustaining a large number of government employees. On-the-ground PA management across the Daxing’anling landscape is the responsibility of field staff provided by the relevant Forestry Management Bureaus. Despite in many cases a large number of staff for each PA, almost all are former foresters - with no qualifications, specific skills or training for conserving biodiversity and managing PAs. The proportion of staff with secondary education background is less than 30%, and staff have a high age structure. PA organigrammes lack positions necessary for PA management (eg. education officers, volunteer coordinators and biodiversity specialists) and there are no job standards for such positions (although such standards have been adopted in other provinces such as Yunnan). As a result of these deficiencies, there is little capacity to conserve threatened species and opportunities for eg local community participation are being missed.

62. *Lack of focus on conservation and management priorities.* Although Master Plans are prepared in a top-down fashion for each PA, they focus mainly on zoning, infrastructure and staff investments, and do not provide an adequate basis for driving the prioritisation and required programmes for conserving biodiversity and managing human activities that is delivered by integrated management planning (in international parlance). This is a major barrier to achieving conservation and sustainable development outcomes. Only a very small budget is devoted to actual management actions, including actions to conserve threatened species or restore degraded habitats. Similarly, there is no framework for biodiversity and ecological health monitoring and knowledge of the status and distributions of key species is extremely limited. There is therefore no evidence-base for adaptive management, which would allow more effective use of the available resources in a dynamic management planning context. Most PAs suffer from lack of basic field equipment for biodiversity monitoring and management.

63. *Weak enforcement.* Rangers have no mandate for legal enforcement but must work closely with the forestry police to control illegal activities over the vast expanses of the PAs. However, they are poorly equipped for this in terms of transport, surveillance equipment and communications. As a result, illegal logging, agricultural encroachment and poaching all continue, with 2908 administrative cases being registered in the Inner Mongolia section in 2009 and 2010, for example, compared to only 95 in the Heilongjiang section where relevant conservation activities are further advanced. Through investment particularly in transport and communications equipment, as well as training of the rangers and forestry police it is expected that the apprehension of illegal activities can be greatly strengthened with long-term benefits for biodiversity.

64. *Limited participation of local communities in PA management.* Daxing'anling's PAs are composed primarily of state managed lands, many of which are quite far from centres of human population. Only a very few areas within the PAs are allocated to local households on time-limited contracts for eg. agricultural use¹². The main current uses of the PAs by communities are for the harvest of non-timber forest products, but it is also expected that recreational and eco-tourism use will expand greatly in the future, providing opportunities for local communities both as users, and also as potential co-managers of these resources. However, there are no guidelines on community-based conservation and co-management of PAs providing clear definition of community use rights and responsibilities for such arrangements. There are therefore risks either that the resources will not be used sustainably, or that the benefits for local communities will not be realised and that they will not be supporters of the PA system. Whilst pilot co-management schemes have been attempted in different parts of the country, there are few examples of collaborative management as yet in the Daxing'anling PAs, either in the form of community co-management or contract conservation. One limited example is how farmers in the Duobuku'er NNR have signed agreements to reduce the impacts of their activities and to assist in fire control. So far, the involvement of local communities in biodiversity conservation is very limited and will require considerable strengthening and expansion to achieve significant regional conservation impacts. There has also been low involvement of local civil society organizations, NGOs and private businesses in supporting conservation efforts to date.

¹² In China, communities are allowed to be involved in management of government lands inside PAs through agreements with the government

65. It will be difficult to capitalize on the potential for co-management until there is higher awareness about the importance of healthy ecosystems among decision makers and local communities themselves. There is also insufficient sharing of lessons learned from on-going work nationally, so that successful models can be replicated and up-scaled. In addition to needing government policy direction explicitly promoting co-management, it will also be helpful to gain the support of local minority groups formerly more involved in traditional land and wildlife management, as these people remain respected by local communities. Finally, local capacity is low in terms of technical know-how for biodiversity conservation and local people have limited ability or mechanisms to participate in the governance or management of PAs. Just as important, PA staff have poor understanding of the merits of community-based conservation and insufficient experience or capacity to provide support and encourage the participation of local communities in their conservation efforts.

STAKEHOLDER ANALYSIS

66. Table 5 (below) lists government institutions, community and private sector stakeholders for the project. In addition to the local communities who will receive direct benefits from the more effective conservation of biodiversity as a result of the project, it should be noted that there are even more numerous indirect beneficiaries of ecosystem protection in the Daxing'anling. These include the many millions of downstream water users (including farmers, households and industries) who will be better protected from flooding and who will receive a more dependable and high quality water flow from this critical water source area. In addition, protection of the area's significant carbon stores (peatlands and forests) is an important contribution to reducing the acceleration of climate change and sea level rises, which are already affecting communities around the world.

Table 5: Key stakeholders and their roles and responsibilities in the project

Stakeholder	Roles and Responsibilities
Ministry of Finance	GEF Operational Focal Point (OFP). Coordination and implementation of GEF projects
State Forestry Administration -SFA (including Wetland Conservation and Management Centre)	<p>Executing Agency for project implementation as the supervisory organisation for the two co-executing agencies (FMAs). The SFA will provide the NPD and host the PMO. SFA will chair the PSC and the DBCC, and will take the lead on implementation of outputs under Outcome 1.</p> <p>Responsible for forest lands, most of China's nature reserves, wildlife issues, wildlife trade (CITES), wetlands protection (Ramsar Convention), drafting of departmental level regulations especially wetlands. In Daxing'anling landscape, SFA is responsible for sustainable utilisation of the timber resources and set quota for timber extraction. SFA is also responsible for ensuring effective wetland PA management and providing supervisory and technical support to PA management. Manages the vast majority of NRs (over 80% of the NR areas) and provide financial support for national NRs. SFA's Academy of Forestry Inventory and Planning is responsible for providing informed data and information for SFA to make relevant decisions</p>
Heilongjiang Daxing'anling Forestry Management Authority (FMA)	<p>The main co-executing (and co-financing) agency for the project in the Heilongjiang section and for the Duobuku'er NNR. Will host the PMU in Jiagedaqi.</p> <p>Responsible their section of the Daxing'anling Region (83,500 km²) including ecological conservation and development as well as associated governance within their jurisdiction as assigned by the State of Council, notably covering managing and conserving forests (and wetlands) and associated wild resources, developing nature reserves, preventing forest fires and conserving natural forests. Reports to the SFA and employs 62,969 staff.</p>

Stakeholder	Roles and Responsibilities
	<p>The administrative arm of the FMA is responsible for the development and management of nature reserves through its subsidiary institutions. The business arm of the FMA (Forestry Management Corporation) is responsible for commercial forestry operation including forest environment monitoring, carrying out quarantine of animals and plants, running state-owned forest resources and managing subordinate forestry companies in a for-profit way except undertaking administrative functions of Daxing'anling Forestry Management Bureaus.</p> <p>Key departments include: Planning, Wildlife and Plant Protection, Fire control, Forest Management and Production, Agriculture, Livestock, Fisheries, Green Food development, Industry, Infrastructure and construction, Natural Resources, Communications, Local Forest Management Bureaus</p>
<p>Inner Mongolia Daxing'anling Forestry Management Authority (FMA)</p>	<p>The main co-executing (and co-financing) agency for the project in the Inner Mongolia section and for the Genheyuan NWP. Will host the PMU in Genhe City, with a Local Technical Adviser also based in Yakeshi.</p> <p>Responsible their section of the Daxing'anling Region (106,275 km²) including ecological conservation and development as well as associated governance within their jurisdiction as assigned by the State of Council, notably covering managing and conserving forests (and wetlands) and associated wild resources, developing nature reserves, preventing forest fires and conserving natural forests. Reports to the SFA and employs 58,513 staff.</p> <p>The administrative arm of the FMA is responsible for the development and management of nature reserves through its subsidiary institutions. The business arm of the FMA (Forestry Management Corporation) is responsible for commercial forestry operation including forest environment monitoring, carrying out quarantine of animals and plants, running state-owned forest resources and managing subordinate forestry companies in a for-profit way except undertaking administrative functions of Daxing'anling Forestry Management Bureaus.</p> <p>Key departments include: Planning, Wildlife and Plant Protection, Fire control, Forest Management and Production, Agriculture, Livestock, Fisheries, Green Food development, Industry, Infrastructure and construction, Natural Resources, Communications, Local Forest Management Bureaus</p>
<p>Local Forestry Management Bureaus (of the FMAs)</p>	<p>Responsible for forests, wetlands and associated wild resources management, forest nursing, managing nature reserves and wetland parks, fire prevention etc. in line with the ultimate mission of Daxing'anling Forestry Management Bureaus.</p>
<p>Site-level Protected Area Management Authorities (of the FMAs) in Daxing'anling Region</p>	<p>The key implementing agencies for site level project activities.</p> <p>Specifically responsible for wildlife conservation and management, environmental promotion, drafting wildlife conservation local regulations, nature reserve's establishment, guiding forest resource-based tourism, wildlife monitoring, and inventory research as well as disease control and utilization.</p>
<p>Provincial Government departments of the Heilongjiang Province¹³ and Inner Mongolia Autonomous Region</p>	<p>All these departments have a key role in mainstreaming biodiversity into their planning and activities.</p> <p><u>Land Resources Management Bureau:</u> Responsible for land management, conservation and planning, in particular regulating land use, mining resources' exploitation in the region.</p> <p><u>Environment Protection Bureau:</u> Responsible for coordinating and supervising key environmental issues, including controlling environmental pollution, reducing carbon emissions, and guiding, coordinating and overseeing ecological conservation work and</p>

¹³ The situation is different in Inner Mongolia, where the FMA operates independently of the regional government

Stakeholder	Roles and Responsibilities
	<p>environment-related international cooperation.</p> <p><u>Agriculture Management Association</u>: Responsible for agriculture, fisheries, and husbandry, including land tenure conversion, agricultural land use planning, and agricultural biodiversity conservation, guiding the conservation of ecological environment of fishing waters and aquatic wildlife, and promoting environmentally friendly food production projects.</p> <p><u>Water Resources Management Bureau</u>: Responsible for sustainable water development and utilization, water resources conservation, hydrological construction and guiding the development and governance of rivers, lakes and streams.</p> <p><u>Fishery Management Bureau</u>: Responsible for fishery-related activities, in particular fishery management.</p> <p><u>Construction Bureau</u>: Responsible for residential housing management and regulation.</p> <p><u>Development Reform Commission</u>: Responsible for sustainable development, economic development projects and monitoring implementation of plans and projects</p>
People's Congress of Heilongjiang ¹⁴ and Inner Mongolia Autonomous Region	Responsible for coordination of legislation and regulation functions in Heilongjiang, including reviewing and approving the regional regulations on the management of PAs.
Local communities (PA neighbours, including forest workers)	<p>As the primary resource users and traditional management of wetland and forest ecosystem in the region, local communities closely interacting with PAs will participate in community-related project activities by contributing their traditional and/or rich resources management and utilization knowledge and culture. Local communities will be the permanent supporters for the effectiveness of protected areas network in the region. Therefore, it is essential for the project to build their interests in PA conservation.</p> <p>Local communities benefit from biodiversity in the Daxing'anling through economic activities such as forestry, NTFP harvest, agriculture, tourism. They also can negatively impact biodiversity through illegal activities, pollution and wastes and positively impact biodiversity through sustainable lifestyles and volunteering.</p> <p>Possible beneficiaries and implementing partners for site level activities of the project – to be engaged through local community forums. Although the region is sparsely populated, neighbouring communities to the PAs (where applicable) will have a major role as hubs for non-timber industry development initiatives that mainly engage local citizens. The Ewenki indigenous community subsist on grazing and hunting near the Genheyuan National Wetland Park with a special traditional hunting permit granted to the people.</p>
NGOs and other civil society organizations	<p>Representing the community</p> <p>Involved in project implementation by providing technical and human support (eg volunteers) for conservation activities, monitoring, environmental awareness and so on.</p>
Media	TV, radio, newspapers, social media can help with raising environmental awareness and promoting project activities.
Private sector	Private Sector is a major resource user and has potentially negative impacts on the integrity of biodiversity and PAs. Active engagement of the existing and emerging private sector companies (tourism, mining, timber and non-timber forest-product processing, infrastructure

¹⁴ The situation is different in Inner Mongolia, where the FMA operates independently of the regional government

Stakeholder	Roles and Responsibilities
	etc.) will be sought as appropriate for implementation of the project.
Academy of Forest Inventory and Planning (SFA, SFA Daxing'anling, and Inner Mongolia Daxing'anling)	Responsible for wetland and forest survey, monitoring, and planning, including developing standards, GIS-based database and reporting systems.
Chinese Academy of Sciences and its associated institutes, Chinese Academy of Forestry, Heilongjiang Academy of Agricultural Sciences, Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences Harbin's Northeast Forestry University, colleges of the Inner Mongolia University in Huhhot	Technical pools available for forestry, hydrological, botanical and zoological perspectives. Available for sub-contracted research, specialist training workshops, PA expansion consultancy and etc.

67. The various government authorities listed above have the responsibility to represent the millions of indirect and direct stakeholders who will be affected by the project through amelioration (or not) of biodiversity and ecosystem services in the Daxing'anling region which affect their lives and livelihoods. It is the task of government to plan and manage the region on behalf of these indirect stakeholders, and to seek equitable solutions for all of society. This involves finding the appropriate balance between environment and development, pursuing sustainability and acquiring adequate financial eco-compensation such as from downstream beneficiaries, and from polluters of water services, for the benefit of upstream communities who carry the greater burden of protecting the shared natural resources. Such an approach seeks to ensure the effective protection and stewardship of the globally significant resources of the Daxing'anling Landscape.

68. Perhaps the most important of the direct stakeholders are the local people and communities who live within or close to the Daxing'anling landscape and who gain their livelihoods and quality of life from use of the natural resources both inside and outside the PAs. Examples are the foresters, those who depend on the harvest of non-timber forest products and those who gain their livelihoods from eco-tourism.

69. The indirect stakeholders include the tens of millions of people in downstream communities who depend on the critical functioning of the Daxing'anling landscape as a water source for the Heilongjiang River and the Hulunbeier region in Inner Mongolia, as well as the world population that depends on the area for its role in combating climate change through carbon sequestration in its timber and peat resources. More details on specific roles and involvement of different stakeholders is provided in the section entitled 'Stakeholder Involvement Plan' (Part VII), and in the baseline report.

BASELINE ANALYSIS

70. The baseline for this project is the “**business-as-usual**” scenario that would take place during the next 5 years in absence of the interventions planned under the project. Under the project baseline state, a range of activities relating to the management and expansion of PAs and restoration of forests and wetlands within the Daxing’anling PAs would be undertaken. These would have some positive impacts on native ecosystems and their flora and fauna. However this baseline scenario alone (currently planned work) would not greatly reduce any of the major barriers identified above, and it is most unlikely that the required step-change in management effectiveness planned by this project would be achieved that is necessary to see the recovery in globally significant biodiversity across the Daxing’anling landscape. Nonetheless the baseline does provide a useful platform for environmental conservation and PA development upon which this project can build, and upon which new synergies for the maintenance of biodiversity (through stronger inter-sectoral coordination and co-management and other means) can be trialled, developed and applied regionally. However, all the barriers listed above would remain largely unaddressed resulting at best in the *status quo* being maintained in the face of increasing development pressures. Specific levels of activity in relation to pertinent issues that can be expected without this GEF intervention are summarized below.

Mainstreaming PA objectives in development planning

71. Legislative reform: Despite some inadequacies of existing legislation and regulations concerning PA establishment and management, it is unlikely that these issues will be addressed in the near future by national or provincial governments without the leverage of this project. Therefore the legal basis for a more participatory, ecosystem-based approach will remain absent. At national level, MEP has revised EIA and SEA regulations to include biodiversity concerns. However even these newly revised environmental regulations will need to be tailored to be more relevant to specific conditions in the Daxing’anling region.

72. Mainstreaming of biodiversity and inter-sectoral coordination: There is a pressing need to expand and diversify economic opportunities in the Daxing’anling region to improve livelihoods of the local communities and compensate for the loss of incomes from reduced forest exploitation. Therefore, the concept of biodiversity conservation as a base for sustainable economic and social development needs to be developed, communicated and understood by all stakeholders. However, the lack of a comprehensive and well communicated overview of the value of ecosystem services in the Daxing’anling region means that biodiversity conservation risks continuing to be marginalised compared to the stronger economic sectors. The *Master Plan on Ecological Conservation and Economic Transition in the Daxing’anling region* is a visionary document, and provides a beacon for the region that is consistent with biodiversity conservation and sustainable development. Responsibility for the delivery of this plan rests with the provincial Development Reform Commissions. There is limited understanding and lack of an implementation plan and coordination mechanism for the biodiversity and PA sector of the FMAs to mainstream their approaches with other sectors – leaving the risk of planning continuing in a largely sectoral way. As a result, major engineering projects would proceed without consideration of implications for PAs, or more importantly for proper ecological functions, and opportunity to tackle basic inadequacies in legislation and mainstreaming PAs and biodiversity into planning would be missed.

73. Nature-based tourism: Nature-based tourism development is a high priority for the region to replace the reduced incomes from forestry, and is one of the obvious options for economic development which can also potentially be compatible with the environmental objectives of the area. However, experience of nature tourism development elsewhere in China is most often mass tourism with big hotels and potential for large environmental impacts. Without the guidance of this project, ad hoc and uncontrolled tourism developments could easily be detrimental to ecosystems, wildlife habitat and biodiversity in general. Already in 2011 there were over 3 million tourist visitors to the Daxing'anling region with an annual growth of 34% in the Heilongjiang section. There is therefore considerable urgency to put in place a strategic and carefully planned approach to ecotourism which builds upon international best practice to unite conservation, communities, and sustainable travel, with fair benefit accruing to local communities.¹⁵

PA system planning and financing

74. Expansion of the conservation estate: Already 16.6% of the Daxing'anling Landscape is included in the PA system. Therefore, creation of new PAs and changes to the existing reserves or establishment of genetic corridors for climate change resilience will require strong justifications thorough a systems review including ecosystem- or habitat-based gap analysis. Without being informed by a full PA systems review (one of the activities under this project, and not otherwise planned), changes to the PA estate would be unlikely to adequately address the most important conservation priorities, and may be resisted by the development sectors. Further development of the PA estate also would likely remain weak due to low staff capacity and insufficient funding.

75. Financing of PAs: Apart from those NNRs supported by state finance for infrastructure construction, the management and operation costs for all PAs as well as infrastructure construction costs for province and prefecture level NRs have to be borne by the forestry enterprises. The PAs are confronted with a severe financing deficiency for operations and development. Many PAs in the region have so far failed to obtain grants from central government due to their relatively lower conservation level. As for national-level PAs, their funds are budgetary appropriation from the FMA that covers employee salary and fringes as well as operational budget. However, the available budget for national-level PAs can merely allow them to fulfil their basic responsibilities, e.g., maintain daily operation and routine patrolling. As a result of these limitations, the financial sustainability scorecard baseline scores were found to be only 16% for both the Heilongjiang and Inner Mongolia sections. Whilst funding for PAs throughout China is expected to increase in the coming years, this funding will focus mainly on physical infrastructure (buildings and roads), rather than on enhancing the quality of planning, increasing the capacity of staff and providing operational costs for conserving biodiversity and managing human activities. The project therefore needs to provide a strong justification for increased funding and to develop innovative funding sources.

¹⁵ The International Ecotourism Society defines ecotourism as "responsible travel to natural areas that conserves the environment and improves the well-being of local people."

Institutional capacity building

76. Evidence-based strategic planning: The need to improve the mainstreaming of biodiversity and the PA system into provincial and sectoral policies has already been emphasised. However, the evidence baseline from research and monitoring is generally inadequate to support this. Whilst there is good technical (ecological) expertise available at the provincial level (for example, Harbin's Northeast Forestry University, colleges of the Inner Mongolia University in Huhhot, other institutes under Chinese Academy of Sciences), this is rarely mobilised into strategic planning for the PAs, as department planners rarely invite academic experts to participate in their planning processes. Different departments also tend to plan independently of each other, resulting in lack of cross-sectoral integration of different plans and programmes. Similarly, there is a great lack of engagement of the academic community in addressing their research towards the management needs of the PAs. There are also insufficient social scientific studies on a variety of topics affecting conservation outcomes, including *inter alia* factors that may affect the success/failure of co-management initiatives. The development of strong links between the academic community and PA planners and managers will be redressed by the project, so as to strengthen the ecological and sociological evidence base.

77. PA staff training and equipment: Whilst the number of staff in the PAs across the Daxing'anling is generally adequate, the rangers lack the training and equipment for effective management of the area and the threats to biodiversity. Rangers lack the adequate transport and equipment to patrol even existing nature reserves, let alone PA system expansion. The FMAs are also limited in their ability to hire new qualified staff due not only to funding shortages but also to government structural arrangements.

78. Staff currently working on PA management across the Daxing'anling Landscape have a variety of backgrounds including forestry, administration, management, accounting, etc.. Field staff of the PAs were shifted from Forestry Bureaus internally; their education level is relatively low, they generally have no qualifications or conservation background, and did not obtain prompt training after recruitment. Very few have training in PA management, wildlife management, ecology, or biodiversity monitoring – and there are no plans to rectify this situation beyond a few training programmes that have occurred on an ad hoc basis sponsored by external organizations such as WWF, DPC, and Sino-Japanese Eco-Training Forum. There is no specific training section in either of the FMAs responsible for addressing this issue. Therefore, prospects for significant further training opportunities in biodiversity conservation or co-management at a regional level remain low without the GEF intervention. The establishment of a long-term strategic capacity building programme will provide critical and urgent support for PA staff to learn relevant skills and knowledge to catch up with the trends of PA management.

79. Law enforcement capacity: PA rangers do not have powers of arrest and rely on collaboration with the forest police to deal with illegal incidents. They are also handicapped by acute lack of transport, travel budgets, communications equipment and adequate training, meaning that their work is inefficient and that they are unable to carry out their functions properly. As a result there continue to be many hundreds of (detected) cases per year of illegal activities such as illegal logging, agricultural encroachment and poaching. This situation will not change unless it is specifically addressed as proposed by the GEF alternative.

Biodiversity conservation and monitoring

80. Threatened species conservation. Despite the area being of critical importance for a large number of globally and nationally threatened species of plants and animals, their population levels remain very low and little active conservation work is being done to improve their conservation status. Indeed, for many species their status and distribution is largely unknown. There are no plans and few prioritised programmes to address this issue; it is therefore very unlikely that their conservation status will improve without GEF support.

81. Restoration of degraded habitats: Under national programmes (eg NNFPP), very large budgets will continue to be expended on different types of ecological restoration and construction projects. However, most of this work is focused on restoring forests for future timber production without considering the needs of biodiversity conservation, which requires a more hands-off approach to allow the natural environment to heal itself (to be restored to its equilibrium state, or to its pre-disturbance condition). Some limited work to restore degraded habitats will continue in some of the PAs, but without good monitoring and a strong evidence base, the effectiveness of these measures will remain unknown.

82. Biodiversity monitoring: While there are good inventories of the forests and most recently of wetland habitats, knowledge of the baseline status of different species is very poor, including globally threatened species. There is no capacity to institutionalise routine biodiversity monitoring at a provincial or individual PA level, and no plan to drive or consolidate the various elements of biodiversity monitoring that are needed. This lack of evidence on the status of biodiversity will remain a major constraint to the effective and adaptive management and conservation of biodiversity in the area. Similarly, although some good research is being done by academics, there is a woeful lack of evidence-based guidelines for PA managers to apply the results of this research in their daily work.

Public awareness and participation (including co-management)

83. Education and awareness: Although the public generally understand the need to safeguard the environment for the important role it plays in providing ecosystem services, there is inadequate education of young people and communication with the public to enhance their support for, and involvement in PA management. Public awareness of threats to native habitats, wildlife and biodiversity and recognition of the value of PAs to the economy of the region will remain low if not integrated in this project. PA staff do not have a specific responsibility for communication and outreach activities, although poster exhibitions, brochures, newspaper articles and films will continue to form part of the general awareness programmes of SFA and the two FMAs. However, without GEF support, such environmental education and awareness projects associated with wildlife and PAs will remain largely unstructured, and without clear targets and monitoring of its effectiveness. Therefore, public education and awareness programmes will remain low key and the PAs will continue to lack a model approach to outreach, including interpretation for visitors.

84. Co-management: Participation of local communities in the governance and management of the Daxing'anling's PAs is extremely limited. This has consequences on the frequency of illegal activities, on the general awareness and support of the public for the protected areas, and on the opportunities for local communities to benefit from sustainable use of these areas. Without the GEF alternative, the very limited existing co-management initiatives will continue, but with an attitude that tends towards top down-management and exclusion, rather than participation and shared benefits. There will be limited opportunity to significantly upscale co-management approaches and learn from successes elsewhere in

China and the world. Community participation in the governance and management of the PAs will remain minimal. Local communities near PAs would remain largely marginalised, if they are continued to be assumed as the sole or major drivers of land degradation when in fact they may contribute to an enhanced sustainable land use and environmental management strategic approach.

Climate change research and adaptation

85. Climate change is a growing concern of the Government, and forms the basis of numerous international negotiations and national programmes for finding a 'green development' path forward. China was the first developing country to publish a National Action Plan on Climate Change. The thrust of national efforts is on increasing energy efficiency, increasing proportions of 'green' energy, and developing alternative energy sources. However the contribution of healthy ecosystems to the fixation of atmospheric carbon (e.g. the extensive forests and peatlands of the Daxing'anling Landscape) is given inadequate attention in national plans, and the impact of climate change on biodiversity and related conservation needs are not specifically addressed. Climate change is already having visible impacts on the Daxing'anling landscape for example with regard to the extent of permafrost and the possibilities for the further development of agriculture which could pose a significant threat in the future.

86. Baseline activities (without the proposed GEF project intervention) will be inadequate to significantly improve on the current management effectiveness of PAs across the Daxing'anling Landscape, particularly in the long-term as wildlife and habitat distributions change as a result of climate change. In addition to expected climate-related changes in biogeographic distributions, and future irrelevance of the current PA system if the underlying vegetation and wildlife distribution patterns change significantly, the forests and wetlands also will lose some of their ability to capture and sequester carbon if they continue to be degraded by unsustainable land use practices. The mitigation of threats (or contributing factors) leading to forest and wetland misuse or overuse are therefore central to a longer-term, climate-aware strategic plan. The importance of increasing the connectivity between different PAs (e.g., with consideration of North-South and/or altitudinal patterns) would help mitigate future problems, but is not presently being considered. A lack of climate considerations means that PA planning is not yet sufficiently rationalized, viz representation of current and future ecoregions as well as connectivity in the PA system.

PART II: Strategy

PROJECT RATIONALE AND POLICY CONFORMITY

Fit with the GEF Focal Area Strategy and Strategic Programme

87. The project is aligned with Strategic Objective (SO) 1 of the Biodiversity focal area, 'Catalyzing Sustainability of Protected Areas Systems'. The project will contribute to this SO by increasing the spatial extent of protected areas and upgrading the status of some PAs from provincial to national level; but also substantially improving the spatial design and management effectiveness of the PA system; consolidating and strengthening the enabling legal, planning and institutional framework for the revision and effective management of terrestrial protected areas; and strengthening the capacity (strategies, tools, mechanisms, knowledge, skills and resources) to support the operational management and financing of PAs. More specifically, the project complies with the eligibility criteria for the Strategic Programme (SP3) on Strengthening Terrestrial Protected Area Networks. The focus of the SP

is on ensuring better terrestrial ecosystem representation through filling ecosystem coverage gaps, and giving the PA system greater resilience in the face of fast changing climate by maintaining connectivity between core areas allowing the gradual redistribution of component species of different ecosystems. Ancillary support will be provided to improve the operational efficiency of the PA system. In addition to strengthening overall PA management effectiveness, the project's work to increase areas under co-management with local communities will, in effect, increase the area under effective conservation management. The project's work on building capacities will also include a component on sustainable PA financing, particularly on increasing cost-effectiveness through establishment of partnerships and increasing the involvement of local communities, which will contribute to Strategic Program 1: Sustainable Financing of Protected Area Systems.

88. The project will contribute to the achievement of GEF's main outcomes under this priority programming area as follows:

Table 6: Contribution of project to GEF's main outcomes

Relevant GEF-5 BD Strategic Program (SO)	Expected GEF-5 BD outcomes	Project contribution to GEF-5 BD Outcomes
Improve sustainability of Protected Systems	Increase financing of protected area systems	Financial sustainability scorecard increases from 16.4% (Heilongjiang section) and 16.0 % (Inner Mongolia section) to >30%
	Expand ecosystem and threatened species representation within Protected Area systems	Proportion of major vegetation types represented in PA system raised
		Threatened species maintain or improve Red List status
	Improved management effectiveness of existing PAs	METT scores of state protected areas increase from a mean baseline of 44.2% to all PAs >55%, and demonstration sites METTs increase by 20% each
Capacity development scorecard increases from a baseline of 49% (Heilongjiang) and 41% (Inner Mongolia), to a final value >60% for Heilongjiang section and >55% for Inner Mongolia		
Mainstream biodiversity conservation and sustainable use into production landscapes/seascapes and sectors	Strengthen the policy and regulatory framework for mainstreaming biodiversity	Biodiversity conservation and the strengthening of the PA system are mainstreamed within the provincial sectoral and development planning frameworks, indicated by a) effective inter-sectoral coordination bodies at provincial and landscape levels; b) targeted plan for biodiversity conservation and PA development; c) defined budget in the sectoral development plans at provincial levels and in the (national) 13th 5-year plan.

89. China's commitment to PA development and biodiversity conservation is also evident in China's early signature to the Convention on Biological Diversity (CBD) in 1992, and many other conservation conventions (CITES, Ramsar, etc.). China has remained steadfast in its commitments under CBD and in particular with activities under article 8 (*in situ* conservation; including especially sub-articles 8 (a-e) regarding protected areas and landscape conservation, and articles 8 (i-j) regarding sustainable use of natural resources, local communities and traditional knowledge). A very extensive national system of protected areas has already been established. By 2010 China had established over 5,000 PAs covering more than 18% of the national territory.

Rationale and summary of GEF Alternative

90. The project will directly target the previously described barriers through a series of steps that aim to enhance wetland PA system management effectiveness. The global and national biodiversity significance of the Daxing'anling's PA system, its vital role as the water source for NE China's major river, the nature and severity of on-going threats to the PA system and the persistence of important barriers limiting its effectiveness have led the Government to prioritise and present this project for GEF support. This is the first major international project ever to address the biodiversity conservation needs of the Daxing'anling Landscape.

91. The focus of the project is to more effectively manage the wetland PA network of the Daxing'anling Landscape as a whole, so that it will better protect a representative sample of the unique biodiversity and contribute to the sustainable development of the entire region. To reach such goals, the project will support a mainstreaming of biodiversity conservation and PAs into provincial strategic planning, policy-making, and funding. It will also integrate biodiversity conservation priorities into the priorities of other sectors by recognizing, promoting and optimizing the true value of PAs within the socio-economic development of the region and with beneficiary downstream provinces. With GEF support, interventions at the level of the Daxing'anling's PA system will strengthen the enabling legal framework and the institutional and human resource capacity to further develop and operate an effectively managed PA system, and mobilize necessary investments to support the expansion and effective management of the PA network. The project will also demonstrate the application of international best practices in PA management within two demonstration sites (Duobuku'er NNR and Genheyuan NWP) so that these approaches can be up-scaled throughout the PA network. This will include the participatory development of integrated management plans, restoration of degraded wetland habitats and recovery of threatened species, measures to ensure human activities are sustainable, strengthening of co-management arrangements and public awareness. As a result of the simultaneous and integrated implementation of these measures the project will secure the management effectiveness of the Daxing'anling's PA network to conserve biodiversity over the long-term.

92. A range of institutions will be involved in the project, particularly from the SFA and FMAs, but also experts from provincial academic institutes, NGOs / civil society organisations active in the field of biodiversity conservation, and provincial government departments (Heilongjiang) concerned with the delivery of ecosystem services originating in PAs, such as the Environment Protection Department, Water Resources Department, Tourism Department, Development Reform Commission. Details of these agencies and their roles in the project are included in the Stakeholder analysis (Part VII). Broader partnerships for conservation will be promoted through GEF involvement, compared to the original "business as usual" scenario.

PROJECT GOAL, OBJECTIVE, OUTCOMES AND OUTPUTS/ACTIVITIES

93. The project **goal** is *to conserve the globally significant biodiversity of the Daxing'anling Landscape, as a key asset for sustainable development*. The project **objective** is *to strengthen the management effectiveness of protected areas to respond to threats to the globally significant biodiversity in the Daxing'anling Landscape of Heilongjiang Province and Inner Mongolia Autonomous Region*.

94. In order to achieve the above objective, and based on a barrier analysis (see Section I, Part I), which identified: (i) the problem being addressed by the project; (ii) its root causes; and (iii) the barriers that need to be overcome to actually address the problem and its root causes, the project's intervention has been organised in three components (also in line with

the concept presented at PIF stage), under which three ‘outcomes’ are expected from the project:

- i. **Outcome 1: Development planning frameworks for the Daxing’anling Landscape provide the enabling environment for expanding the forest and wetland PA network and mainstreaming biodiversity as an asset for sustainable development**
- ii. **Outcome 2: The management effectiveness of the PA network across the Daxing’anling landscape is greatly strengthened**
- iii. **Outcome 3: Effective PA management is demonstrated in the Duobuku’er NNR and the Genheyuan NWP**

95. Activities under these three outcomes, are closely aligned with the activities of the other projects of the MSL Programme under the framework provided by the National level project, and will therefore benefit from a high degree of cross-fertilisation. They will focus on three levels of intervention:

- a) At the Daxing’anling landscape level, through working with public institutions and agencies to develop the systemic, institutional and individual capacity to plan, adapt and effectively supervise management of the entire Daxing’anling landscape for its conservation and sustainable development.
- b) At the PA system level, through strengthening the capacity of the Heilongjiang and Inner Mongolia FMAs to manage effectively their PA systems within the Daxing’anling landscape by the development of appropriate regulations, systems and standards and the sharing of good practices.
- c) At the local site level, by implementation of model management approaches and enhancing staff management capacity for two demonstration PAs: Duobuku’er NNR in Heilongjiang Province and Genheyuan NWP in Inner Mongolia. These two PAs were selected from a provisional candidate list of four sites mentioned in the PIF as providing the best opportunity for implementing model approaches as well as scaling up to the other PAs in the network through demonstration and training activities.

Outcome 1: Development planning frameworks for the Daxing’anling Landscape provide the enabling environment for expanding the forest and wetland PA network and mainstreaming biodiversity as an asset for sustainable development (*Total cost: 10,284,661 US\$; GEF 700,000 US\$; Co-financing 9,584,661 US\$*)

96. This component will mainstream biodiversity, the PA network and its objectives in the Daxing’anling Landscape within the regional development planning framework, and thereby remove Barrier 1 identified above. The project will do this through: (i) conducting a valuation of the ecosystem services provided by the Daxing’anling Landscape’s biodiversity and its PAs (under the framework provided by the MSL National-level project; (ii) the establishment and institutionalisation of inter-sectoral coordination mechanisms at the landscape level among different stakeholders to integrate biodiversity conservation into sectoral planning and coordinate implementation; (iii) developing and implementing an action plan for biodiversity conservation and sustainable use in the Daxing’anling Landscape under the *Master Plan of Ecological Conservation and Economic Transition in the Daxing’anling and Xiaoxing’anling Forested Region*; (iv) expanding the wetland and forest PA network in the Daxing’anling Landscape by at least 1.0 million ha, with increased coverage of wetland type PAs by 770,000ha, as a major contribution to the overall MSL target. As a result of these project interventions there will be a clearer understanding of, and

support for, biodiversity conservation in the region, and a stronger “green” branding of the region. Different sectors will be aware of their impacts on and responsibilities for biodiversity conservation, and will be working in a coordinated way to support biodiversity conservation and sustainable development. There will be a wide constituency of support for the PA system, including its further expansion.

Output 1.1: Valuation of the ecosystem services provided by the Daxing’anling Landscape provides a strong business case for conserving biodiversity and expanding and strengthening the PA network

There is a pressing need to expand and diversify economic opportunities in the Daxing’anling region to improve livelihoods of the local communities and compensate for the loss of incomes from reduced forest exploitation. Therefore, the concept of biodiversity conservation as a base for sustainable economic and social development needs to be developed, communicated and understood by all stakeholders. The project will lay the foundation for this process by undertaking a comprehensive valuation (monetary and non-monetary values) of the ecosystem services provided by the Daxing’anling Landscape’s biodiversity. This assessment will be undertaken at 3 levels: for the whole Daxing’anling Landscape, for the entire PA system, and for the two demonstration sites (Duobuku’er NNR and Genheyuan NWP). There are many ecosystem services provided by the area¹⁶. The study will undertake an economic assessment of all the ecosystem services provided, with a particular focus on water supply (quantity and quality) and flood regulation, carbon sequestration, tourism, timber products, natural foods and medicinal plants. The study will assess the potential cost of inaction for sector development, if biodiversity and these ecosystem services are damaged through a lack of effective protection and management. Key sectors dependent on the Daxing’anling Landscape’s ecosystem services, whose productivity will be negatively affected by ecosystem degradation or loss are forestry, harvest of non-timber forest products and tourism as well as downstream agriculture. The results will provide a critical evidence base that can be used to persuade policy makers, local communities and the private sector that it is in their economic interest to conserve and use biodiversity in a sustainable manner. This will strengthen the justification for environmental protection policies and help leverage greater payments from eco-compensation initiatives and payments for ecosystem services (PES) that could be used to motivate and reward local communities for good environmental stewardship. The study will also confirm the importance of the region for its biodiversity, both globally and to China.

97. Whilst there have been a number of academic studies of the value of ecosystem services in the Daxing’anling region (eg for carbon sequestration, by Harbin University) and for water regulation, these have been neither comprehensive nor well communicated to, or understood by, key stakeholders. A participatory process will therefore be followed: (i) to review the existing evidence, (ii) to fill gaps (including the provision of seed funding to stimulate new research eg on the relationships between forest and wetland cover and permafrost and carbon sequestration), (iii) to prepare a comprehensive and user-friendly

¹⁶ A high level qualitative assessment of the area classifies the following ecosystem services as important – timber products, food (wild berries, mushroom, vegetables and fish), regulation of greenhouse gases, micro-climatic stabilisation, water provision and regulation, water purification and nutrient retention. Other ecosystem services provided by the area are firewood, natural medicines, ornamental resources, aquifer recharge, educational services, recreation and tourism and landscape and amenity.

overview, and (iv) to deliver targeted communications materials to key stakeholder groups on the economic rationale for improved biodiversity conservation in the region. This latter activity will be given the highest attention, with high profile national and local launches of the final report (including policy seminars), sectoral policy briefings, series of media releases, films, web pages and high quality presentations that can be used by educators and PA communications staff. The findings of the valuation review will be used to enhance the ability of policy makers, planners, and managers from sectoral agencies to incorporate economic and financial data on biodiversity into their decision making. Therefore, through an associated training activity, the study will build the capacity of FMA staff and counterparts to understand and use the results in their dealings with sectoral agencies.

98. A consultancy contract will be let to undertake this work under the supervision of SFA and with support of the Local Technical Advisors. The MSL National project will provide coordination in terms of training and promotion of best practice across the projects and facilitating learning and sharing of experience. The project will use a globally recognised methodology that assesses values of biodiversity and ecosystem services in both monetary and non-monetary terms. Using this framework, valuation data will be analysed in terms of economic/social and environmental costs and benefits, their distribution between different stakeholder groups and sectors as well as related to historical trends. Historic, existing and potential values will be assessed. Potential changes in value under different management scenarios will also be assessed, and the economic costs from ecosystem degradation and loss will be provided. Data analysis will identify current incentives and disincentives to conservation, and potential opportunities to use economic and financial instruments to redress imbalances, capture benefits, minimise costs and enhance stakeholder incentives for conservation. A particular emphasis will be given to sustainable financing mechanisms, fiscal instruments, charges and fees, payments for environmental services, and instruments which work to provide local and livelihood incentives for conservation. Specific economic, financial and fiscal instruments which could be applied in the Daxing'anling region on the basis of ecosystem services will be recommended.

Output 1.2: Inter-sectoral coordination and planning mechanisms strengthened to integrate biodiversity and PA systems values and objectives into development and sectoral planning process

99. This output will focus on the establishment of inter-sectoral coordination mechanisms both within Heilongjiang and Inner Mongolia sections individually, and also across the entire Daxing'anling Landscape to ensure that biodiversity conservation and the PA system values and objectives are fully mainstreamed in the development and sectoral planning frameworks and mechanisms. This coordination will ensure that different sectors plan and implement their actions in a biodiversity-friendly (and low carbon) way that does not compromise sustainable development and supports the emerging "green" brand of the region. It will therefore promote sustainable development based on the region's environmental assets and ensure that environmental safeguards from economic sector practices are in place. In the long term this will reduce pressures on biodiversity from forestry, tourism, agricultural, industrial and mining-related encroachment and habitat degradation. Particular focus will be given to the provincial Development Plans based on National 5-year Plan, individual sector plans, and the *Master Plan of Ecological Conservation and Economic Transition in the Daxing'anling and Xiaoxing'anling Forested Region* (see also Output 1.3). Only by achieving such mainstreaming will the project's achievements in the Daxing'anling region be sustained beyond the project's lifetime.

100. There are no existing inter-sectoral coordination mechanisms for promoting and mainstreaming biodiversity conservation within either Heilongjiang or Inner Mongolia sections, nor between the provinces for the entire Daxing'anling landscape (although an inter-provincial coordination mechanism does exist for fire control). During the PPG phase both province-sections agreed the need to create such mechanisms given the new regional priority for biodiversity conservation. Each province-section will therefore establish, initially under the aegis of the GEF project, a Project Coordination Group (PCG) which will meet at least twice each year to advise the project and promote mainstreaming of biodiversity and protected areas into key development plans. The PCGs will be chaired by a senior official of the respective FMA and will comprise focal points from relevant sectors/divisions (including conservation, science, water, environment, silviculture, tourism, planning, industry, agriculture, livestock and fishery, finance, communications as well as the demonstration site FMB and representatives of local communities). Coordination at the Daxing'anling Landscape level between these two PCGs will be provided by the Daxing'anling Biodiversity Conservation Committee (DBCC) which will meet at least annually, alternating between the two province sections. This landscape level DBCC will be chaired by SFA and will comprise the chairs of the 2 PCGs, the 2 Conservation Division Chiefs, the Directors of the two demonstration site FMBs and other members required for mainstreaming and promoting biodiversity. Key technical support to the DBCC and PCGs will be provided by the Chief Technical Advisor, Local Technical Advisors and the Environmental Mainstreaming expert.

101. The DBCC and PCGs will initially be established to advise the implementation of the GEF project. However, as part of the sustainability and exit plan of the project, their role will be formalised through appropriate legislation as permanent constituted bodies to advise on implementation of the *Master Plan of Ecological Conservation and Economic Transition in Daxing'anling and Xiaoxing'anling Forested Region*, and on the priorities for inclusion in the 5 year development plans.

Output 1.3: An action plan for biodiversity conservation and sustainable use in the Daxing'anling Landscape is developed and implemented

102. The *Master Plan of Ecological Conservation and Economic Transition in the Daxing'anling and Xiaoxing'anling Forested Region*, was developed by the NDRC and approved by the State Council to cover the period 2010 – 2020. It identifies the key role of biodiversity and ecosystem services in underpinning the sustainable development of the Daxing'anling region, and therefore provides an extremely valuable policy tool and framework for achieving the objectives of this GEF project. The Development Reform Commissions of each province are responsible for overseeing implementation of the Master Plan, with support of the SFA and local government.

103. To date, there has been little direct engagement of the FMAs and their FMBs in the implementation of this important *Master Plan*, reflecting their limited capacity in biodiversity conservation, and the lack of clear priorities for implementation. Local partners have therefore agreed to develop an *Action Plan for Biodiversity Conservation and Sustainable Use in the Daxing'anling Landscape* to be adopted as an implementation plan for biodiversity under the *Master Plan*. The plan will be designed to provide the SFA and its two FMAs and local government agencies with clear priorities and targets for securing biodiversity and ecosystem services as the basis for sustainable development of the area. The plan will include

inter alia the following sections:

- Implementation priorities for landscape level (spatial) land use planning with biodiversity priorities integrated according to the principles of the ecosystem approach, to determine the most effective and sustainable land use patterns within the landscape that will maintain and restore ecosystem functions. The improved measures for spatial planning will incorporate the proposals for strengthening and extending the PA network which are to be developed under Output 1.4.
- Implementation priorities for biodiversity conservation and recovery, including:
 - Actions for the restoration of degraded habitats, with particular focus on fire-damaged areas, inappropriately afforested wetland habitats, land damaged by infrastructure works (mines, quarries, buildings)
 - Actions for the recovery of threatened and flagship species
 - Actions for the control of alien invasive species, pests and diseases, including emergency response plans
 - Climate change adaptation measures based on the existing assessments of future scenarios and impact on biodiversity and ecosystem services
- Implementation priorities for sustainable use and the control of sector expansion, promoting new or modified guidelines and/or regulations where necessary including:
 - Actions to develop destination green tourism at the Daxing'anling landscape level (as opposed to site-based tourism), such measures will include good practices in green tourism development to minimise impacts on the environment, the development of PA ecotourism networks with sustainable transport connections, and increased opportunity for communities and local enterprises to participate in and benefit from such developments.
 - Actions to control expansion of agriculture and damaging agricultural practices – as well as conversion of existing agriculture to environmentally friendly agriculture with the possible creation of a “Daxing'anling product brand”.
 - Actions to control industrial and infrastructure development and mining operations including placing stricter controls on industries, infrastructure and mining operations that impact on the integrity of wetlands and PAs, tighter inspection of factories and mining sites, higher environmental standards to prevent pollution and other adverse impacts on ecosystems, obligatory rehabilitation of mining sites at the expense of the companies.
 - Actions to ensure that forestry practices integrate biodiversity and ecosystem health concerns, including a review of the timber quota decision making system
 - Actions to ensure the sustainable harvest of non-timber forest products
 - Actions to secure good water quality throughout the Daxing'anling landscape (particular focus on wastewater treatment for towns)
 - Measures to improve the application of EIA regulations, SEA and planning through preparation of practical guidelines for undertaking engineering works (road-making, underground cables, bridges, quarrying) in fragile ecosystems. Although the national EIA and SEA regulations have been reviewed to include biodiversity aspects, there is a need for specific safeguards for the unique and fragile ecosystems of the Daxing'anling. For example, there should be local regulations relating to disturbance of the permafrost layer, as well as soil rehabilitation measures following all engineering activities. Stakeholder participation mechanisms in the EIA process should also be strengthened.

- An Integrated monitoring system to demonstrate progress towards ecosystem health at landscape level (building on the Ecosystem Health index methodology trialled during the PPG). A selection of suitable indicators will be identified by an expert group for monitoring biodiversity, ecological conditions, management effectiveness and socio-economic conditions. These should be routinely monitored, with clear responsibilities and reporting requirements for each agency. In order to operationalise the monitoring programme the responsible agencies will require adequate funding, equipment and training to perform their respective roles.

104. Development of this Action Plan will be completed by the end of Year 2 of the project through a participatory process facilitated by the Environment Mainstreaming specialist, with support of the international Wetland Conservation specialist, and under the close supervision of the Daxing'anling Biodiversity Conservation Committee (and province-section Project Coordination Groups) who will also oversee its implementation during the remaining period of the Master Plan (ie. to 2020). A report on the progress with implementation of the Plan will be delivered by the end of the GEF project with specific recommendations for adjustments for the remaining period covered by the Master Plan.

Output 1.4: Wetland and forest PA network in the Daxing'anling Landscape expanded based on a systematic review of PA coverage

105. Work during the PPG phase concluded that the greatest priority is to enhance the capacity and management effectiveness of the existing PAs, which already cover 16.6% of the Daxing'anling region. However, it is also important to ensure that there are no major gaps in the PA system. While the current PA system covers a good range of representative habitats and ecosystems in the landscape, there are still recognised to be some gaps, for example for endangered species. A systematic review of PA coverage will therefore be undertaken to identify overall spatial needs for further protection of biodiversity in the Daxing'anling Landscape. This will build on the existing Master Plans on Wildlife Conservation and Nature Reserve Development for the two province sections with the objectives of: a) providing more effective and representative conservation of threatened habitats and species; b) providing more effective protection of critical ecosystem services, particularly those provided by wetlands and those that deliver economic benefits to the region; and c) ensuring the PA system is better able to sustain biodiversity in a changing climate. This review will consider extensions to existing PAs, the creation of new PAs, status upgrades to prefectural and provincial level nature reserves, and potential for international designations to ensure a higher level of protection and investment. The result of this review will be the preparation of a Daxing'anling Landscape level PA Systems Plan including concrete actions to deliver PA expansion and investment in the 13th 5-year plan. The PA Systems Plan will be included as a specific chapter in the *Biodiversity Conservation and Sustainable Use Action Plan* to be developed under Output 1.3 and adopted under the *Master Plan of Ecological Conservation and Economic Transition in Daxing'anling and Xiaoxing'anling Forested Region*.

106. Based on this plan, new PAs will be gazetted and operationalized with staff, budget and management infrastructure in critical areas. According to proposals during project preparation (see Table 7), PA coverage in the Daxing'anling landscape will be expanded from the current baseline of 3.10 million ha to 4.20 million ha, with an increase of natural wetland (including wetland type NRs and wetland parks) from the baseline of 1.27 million ha

to 2.05 million ha by the end of project (an additional 0.78 million ha). Already during the PPG, 7 potential Forest type NRs¹⁷, 11 potential Wetland type NRs¹⁸ and 11 potential Wetland Parks¹⁹ were identified as candidates, but final selection will take into account the results of the PA Systems Plan study, described above.

Table 7: PA expansion targets for the Daxing'anling Landscape

Code	PA Category	PA in Heilongjiang Section (million ha)	PA in Inner Mongolia Section (million ha)	Expanded PA in whole Daxing'anling (million ha)	
		Baseline Coverage	Baseline Coverage	Baseline Coverage	Target Coverage
1	Forest Type Nature Reserves	0.795	1.038	1.833	2.154
2	Wetland Type Nature Reserves	0.943	0.193	1.136	1.666
3	Wetland Park	0.067	0.064	0.131	0.381
Total		1.805	1.295	3.100	4.201

107. In addition to this increase in the extent of the PAs, upgrades to the level of existing PAs will add 577,127 ha to the existing National level PAs and 116,799 ha to the existing Provincial level PAs (see Table 8). Furthermore, the possibility of securing international designations, such as the under UNESCO Biosphere Reserve or natural World Heritage Site status, or under the Ramsar Convention (for example the Genheyuan NWP demonstration site) will be explored. Such international recognition could provide an economic driver for the “green” branding of the region which is a target of the above *Master Plan*.

Table 8: PA upgrading targets in the Daxing'anling Landscape

PA Levels	Heilongjiang Section PA Area (Ha)		Inner Mongolia Section PA Area (Ha)		Daxing'anling Region PA Area (Ha)	
	Current Area	Target Area	Current Area	Target Area	Current Area	Target Area
National level	765,693	1,021,342	231,875	553,353	997,568	1,574,695
Provincial level	261,000	504,277	1,062,813	936,335	1,323,813	1,440,612
Total	1,026,693	1,525,569	1,294,688	1,489,688	2,321,381	3,015,307

108. This Output will be delivered by provincial task forces established by the two Daxing'anling FMAs supported by the Local Technical Advisors. Contracts may be let to specialised institutions to fill any gaps in evidence or capacity. Starting from a set of clear

¹⁷ A'muerXing'an, Xilinji Wild Blueberry, Shibazhanyongqing, Chaocha, Daheishan, Yi'ershi, and Boyinna

¹⁸ Hanjiayuan Kuanhe, Huzhong Zhongyalihe, Xilin Jidalinhe, Tahe er'shi'erzhan, Tuqiang Laochaohe, Er'genhe, Cuiling, Beidahe, Yitulihe, A'beihe, and Ganheyuan

¹⁹ Huzhong Humaheyuan, Songling Kanduhe, Tahe Humahe, Mehe Sanhe, Jiagedaqi Naliduhe, Huma Shi'erzhan, Niu'erhe, Cuoerheyuantou, Jiwen, Kudou'er, and Kuilehe.

policy objectives of what is expected from the Daxing'anling PA system, the task forces will analyse the current distribution of PAs and review how well the network meets these objectives. Gaps in coverage of major ecosystems or species and areas where gap-filling new PAs may be required should be identified. The review should make recommendations on the boundaries and zones of existing PAs in relation to biodiversity needs and the socio-economic context. The climate change adaptation needs of biodiversity and ecosystems will be fully integrated into the PA system plan. Available climate change scenarios and prediction on impacts and vegetation/animal responses will be closely reviewed, and the PA system adaptation strategy and appropriate genetic corridor design will be developed. Genetic corridors aim to allow for gradual species range shifts in response to changing climates. The plan will suggest amendments to the boundaries and zones of PAs where necessary, and will identify critical connectivity points where genetic corridors are needed. In some cases this may require habitat restoration. The final PA system Plan will be submitted for approval by the two FMAs.

Outcome 2: The management effectiveness of the PA network across the Daxing'anling landscape is greatly strengthened (*Total cost: 8,500,000 US\$; GEF 700,000 US\$; Co-financing 7,800,000 US\$*)

109. This Outcome focuses on strengthening the systemic institutional, financial and individual staff capacity of the Heilongjiang and Inner Mongolia Daxing'anling Forest Management Authorities (FMAs) and their Forest Management Bureaus (FMBs) to effectively manage the PA network to safeguard the wetland and forest ecosystems and biodiversity. As a result, the supervisory capacity of the two FMAs will be strengthened for planning and monitoring wetlands and PAs and enforcement and compliance monitoring of new sector standards. This review is of particular importance in light of the envisaged and ongoing structural reforms of the FMAs. In support of this objective, Outcome 1 will provide the justifications and high level support for further development of the PA system, and Outcome 3 will provide a platform for demonstrating good practices at two sites for extension across the whole PA system.

110. The outputs necessary to achieve this Outcome are described below and include: (i) development and implementation of an institutional strengthening plan to streamline operations, clarify roles and responsibilities and encourage higher standards of performance; (ii) development of regionally specific regulations and guidelines to strengthen systemic capacity for effective PA system management; (iii) improved business planning and resource allocation for PAs to directly address threats, including the development of innovative and sustainable financing mechanisms (supported by the MSL National-level project); (iv) establishment of a training programme to ensure sustainable and appropriate human resource development geared towards effective PA management; (v) a PA and biodiversity information management system (under the framework provided by the MSL National-level project) established to support the wetland PA network in Daxing'anling Landscape, for biodiversity and ecosystem health monitoring and enhanced communications and information sharing.

111. The level of communication between the two FMAs on biodiversity conservation issues is currently inadequate for providing a harmonised approach to PA management across the entire landscape. Through the work undertaken for this Outcome, the project will encourage more joint working, cross-learning and better coordination under the supervision of the Daxing'anling Biodiversity Conservation Committee.

Output 2.1: PA institutional strengthening plan adopted and operationalised

112. An institutional strengthening plan to ensure maximum management effectiveness of the PA system across the two Daxing'anling FMAs will be developed under this output. This will be the first review of its kind. Based on the management effectiveness tracking tool and capacity scorecard assessment conducted during the PPG, work under this output will focus on identifying and rectifying current weaknesses and shortcomings in institutional organisation and management. Gaps and weaknesses identified from the METT and Capacity scorecards (and described in the baseline section above) will be further analysed and used to prepare an institutional strengthening plan. The IUCN toolkit for PA management self-assessment (<http://data.iucn.org/dbtw-wpd/edocs/PAG-006.pdf>) will also be useful for guiding the process. Recommendations will be made to streamline operations, clarify roles and responsibilities and encourage higher standards of performance. The review should look at existing roles and responsibilities of different offices, improvement of the staff structure for adequate and skilled staffing, areas of overlap, conflicts or gaps, reporting and communication needs, financial needs and opportunities, staffing level and performance (including evaluation procedures), in-service training and training needs, career structure and standards, operational procedures. In addition, a mechanism for regular periodic review should be established. A stepwise plan detailing the necessary actions will then be developed, adopted and implemented. The institutional strengthening plan should feed into outputs 2.2, 2.3 & 2.4 in order to ensure that new functions are fully integrated in the legislative framework for PAs, business plans and capacity strengthening programme. A staff recruitment programme will be initiated to draw in graduate level recruits with the required specialist expertise. There also needs to be close linkage with output 2.3 to ensure adequate financing for optimal institutional set up. This Output will also explore ways to improve coordination in the management of PAs, both with other government departments, but also with the private sector and local communities. Ideally PAs should enjoy the support of a strong alliance of synergistic partners rather than be the sole responsibility of single institutions.

113. This output will be delivered for each FMA through a highly participatory process with a task force of managers and practitioners, facilitated and supported by the Local Technical Advisor, and with inputs from the International Wetland Conservation Specialist. Specialised institutions will be contracted where necessary to undertake specific reviews or to prepare in-depth implementation plans. Whilst separate institutional strengthening plans will be prepared for each province section, all efforts will be made to harmonise the approaches recommended, through common TORs, joint meetings of the task forces and supervision by the Daxing'anling Biodiversity Conservation Committee. The PA institutional strengthening plans will be presented to the SFA and FMAs for adoption and implementation.

Output 2.2: Systemic capacity strengthened for effective PA system management through regionally specific regulations and guidelines

114. This output will fill the gaps in national legislation through developing and/or improving regionally-specific regulations and guidelines for the Daxing'anling Landscape, given its critical role for China's biodiversity, water security and regional climatic stability. Provincial level regulations already exist for each NNR, and a Wetlands Regulation was adopted for Heilongjiang Province in 2004 (the 1st such regulation for China) and for Inner Mongolia in 2010. However local partners have identified the specific need for a regulation on PA management in the Daxing'anling Landscape, to bring it in line with the CBD Ecosystem Approach. Such a regulation needs to be formulated to address the following gaps

and weaknesses in the existing legislation:

- i. Biodiversity conservation such as provisions for *inter alia* the management and restoration of important habitats and threatened species; measures for addressing Invasive Alien Species, pests and diseases, including emergency response planning; an effective biodiversity monitoring and reporting regime for biodiversity and PAs. Climate change adaptation needs of biodiversity should be mainstreamed in the regulations.
- ii. Human use of resources such as ecotourism and the harvest of non-timber forest products to ensure that these activities are sustainable;
- iii. Community participation and co-management, defining community use rights and responsibilities as well as participation mechanisms for communities in PA management and decision making processes;
- iv. Sustainable financing mechanisms
- v. EIA and SEA tailored for the ecological and socioeconomic conditions of the Daxing'anling Landscape.

Support will be provided to address these gaps through a consultant specialised in PA and Biodiversity legislation (as well as the specialised consultants on PA Financing and Community co-management) who will work with a task force of PA managers and local experts to review the key weaknesses and gaps and develop new regulations and guidelines, incorporating legal advice as necessary. The regulations and guidelines will be developed in a participatory way, taking account of experiences at the two demonstration sites through activities described under Outcome 3. The Daxing'anling Biodiversity Conservation Committee and the two Project Coordination Groups will advise on the overall development of these regulations and guidelines, and will support their adoption for implementation across the PA system.

115. Although population densities are low the baseline section has revealed that many hundreds of wildlife crimes are brought to court each year (with presumably many others going undetected). At present, the PA rangers have no power to enforce legislation (ie make arrests) in either Heilongjiang or Inner Mongolia sections – this power residing with the Forest Police who belong also to the FMAs. In Inner Mongolia, there is a strong desire to obtain such a power for the PA rangers. While the project will support exploration of options for providing greater policing mandate to PA staff, this seems unlikely to be granted. Therefore, the priority in both province sections is to enhance the capacity of the rangers to carry out their surveillance functions effectively and to support the Forest Police to deal with biodiversity issues, by developing stronger coordination with the PA rangers and by providing the Forest Police with specific training in biodiversity and wildlife crime.

Output 2.3: Improved business planning and resource allocation for PAs to directly address threats

116. The financial sustainability scorecard baseline score of 16% for both Heilongjiang and Inner Mongolia provincial sections of the Daxing'anling Landscape clearly emphasises the importance of securing sustainable financing for Daxing'anling's PAs. The project will therefore identify and strengthen the overall legal, policy, regulatory and institutional arrangements for financial planning, revenue generation, and revenue retention at site and PA systems level. It will also strengthen business planning of PAs to ensure more effective use of scarce resources and help identify and support increased operational budget allocations for

PA network management.

117. Work under this output is intended to strengthen investment in PA management from government, private sector and other innovative sources. As described in the baseline section, financial assessment under PPG revealed a massive gap between the financial needs for PA operation and development, and the resourcing that was available. Most PAs receive only a small proportion of what they realistically need for basic operations such as patrolling, monitoring and law enforcement, as well as for the management and restoration of biodiversity and the development of their facilities and programmes. The justification for greater financial investment in PAs will be derived primarily from measurement of the economic and social benefits provided by protection of the biodiversity and ecosystem services of the Daxing'anling region, to be undertaken under Outcome 1. Having measured these "benefits", a detailed assessment of the required financial investments for managing an effective PA system in order to conserve these ecosystem services will be undertaken, taking account of the results of the institutional strengthening plan (Output 2.1). This cost-benefit analysis will provide the basis to convince government and private sector to make additional investments for improving PA protection. The project will support a thorough review of annual budget planning and allocation process to identify areas for improvement. The potential of this project to pilot and demonstrate national strategies – such as fund transfers, environmental valuation tools, eco-compensation measures, integration of conservation and rural development, etc. – is large, and this can help to create buy-in from partners.

118. Thus, (assisted by the training to be given through Output 2.4, below) the project will support development of a PA system business plan to help develop a more convincing official budget request document to mobilise increased operational funds. This will assess the required management costs of the individual PAs and the whole PA system for each of the two FMAs and then identify the mechanisms and cost-shares from different income sources that can be levered to meet the required costs, including both traditional and novel financing mechanisms. Traditional mechanisms will include both national and provincial government financing of PA system management, use of income from the profits of forestry, but also better leverage of eco-compensation mechanisms to be directed towards rewarding ecosystem stewardship within the PA system. Novel mechanisms could include various types of Public-Private Partnerships (PPP) or Corporate Social Responsibility (CSR), although there are few large industries within the Daxing'anling region. The business plan should also evaluate the potential of other types of revenue that could contribute towards the objective of achieving financial sustainability of the PA system, such as: international NGO collaborations for specific projects, introduction of private enterprise concession systems for eco-tourism or farming forest products (mushrooms, berries, medicinal herbs, livestock), tourism taxes, downstream water taxation, advertising rights and promotion, carbon trades, mining and aggregates taxes, branding of local products, access payments from infrastructure developments (railway, roads, underground cables, power lines etc.) across PAs, biodiversity offsetting from EIA compensations outside the PA. Although challenging in legislative terms, this output will also evaluate (and trial, if appropriate) the establishment of specific trust funds either at PA system level or for individual PAs, that could help draw in new sources of funds.

119. A specific component of work will explore how use of eco-compensation schemes can be further developed in the demonstration areas to reduce threats to biodiversity. In exchange for the ecological services provided by these areas (such as water resources), downstream beneficiaries should provide direct or indirect eco-compensation to upstream

regions and communities, to create incentive (and provide recognition) for local communities' contributions to the maintenance and long-term conservation of the catchment areas and PAs in the Daxing'anling region. The central government-funded National Natural Forest Protection Programme (NFPP) is the only fully operational eco-compensation programme at present (but a new scheme providing co-financing for wetlands will start soon), contributing towards: (i) developing new livelihoods to reduce dependence on forestry, (ii) supporting economic transition, and (iii) providing income to retired foresters. It is recommended to have the 720,124 ha of national nature reserves listed as national ecosystem compensation experimental sites. Two additional approaches/beneficiaries for the use of eco-compensation funds are recommended for further investigation under this output: a) contribution to the field operations costs of the PAs including enhancing management effectiveness through recruiting graduate-level young staff and providing "apprenticeships" in PA management, supporting the training programme for staff, promoting community co-management and for important biodiversity conservation measures; and b) assisting neighbouring communities through payment for co-management services rendered (both labour contributions and protection and safeguarding of ecosystem function and wildlife) or to stimulate sustainable related businesses. Payment to communities should be via community funds and cooperatives, with clear accountability and governance structures.

120. The development of high quality ecotourism is a high priority at both of the project demonstration areas (see Output 3.3), and facilities are already in place at the Genheyuan NWP. This activity has the potential to generate new sources of funding for PA management, including co-management by local communities, and will be a focus for the development of model financing mechanisms under the project.

121. Delivery of this output will be supported by a national consultant with expertise in sustainable financing for PA systems working closely with a task force comprising relevant staff of the two FMAs, plus the inputs of the Local Technical Advisor. An international PA Financing specialist will also be hired to draw in international best practice in this field, such as the work of the "Conservation Financing Initiative", and the GEF/STAP advisory documents on Payments for Environmental Services and Community Forest Management. The main deliverables will be: a) a 5 year Business Plan for the PA systems in each province section; b) model business plans for individual PAs developed for the Duobuku'er NNR and Genheyuan NWP; c) a report recommending options for strengthening both traditional and novel sources of PA financing, including in particular eco-compensation funds, d) demonstration of the implementation of recommended options for the two demonstration sites. These tools will be used by the two FMAs to secure an overall 100% increase in financing for PA management (ie operational costs, excluding salaries) by the end of project.

Output 2.4: PA staff skills enhanced with over 300 trainees meeting occupational competency standards

122. Although the numbers of staff in some (but not all) of Daxing'anling's PAs are substantial in comparison with international norms and some other PAs in China, there is a great lack of professional staff with the skills and experience to undertake biodiversity conservation and PA management duties. This reflects the fact that most staff were previously foresters, but now find themselves managing protected areas and biodiversity as the result of a change in policy regarding land management, rather than having been recruited specifically for this purpose. The problem is compounded by the lack of any formalised training programmes in appropriate areas within the FMAs (although staff occasionally have

the option to attend some national programmes). Capacity building to ensure sustained human resource development for effective PA management has therefore been identified as a critical and urgent priority for the project.

123. Work under this Output will have two strands, to be developed in a similar way for both FMAs. The first strand will be to support the development of a strategic, long-term approach to individual capacity building for effective PA management and biodiversity conservation in the Daxing'anling region. This will involve the design and establishment of a Biodiversity Conservation and PA Management Training Programme for each FMA. This will be embedded within the institutional development plan to be developed under Output 2.1 which will create a Section within the Conservation Department to be responsible for ensuring that PA management staff are trained regularly, with competence standards/accreditations (linked to the proposed national-level PA staff competency standards) to serve as the basis for promotions and appointments. The training programme will establish formal cooperation agreements with specialised national (universities etc.) and international institutions.

124. The second area of work under this Output will be to design and deliver tailored training modules to address technical gaps in PA staff skills. Priority training needs were identified during the PPG phase, and include:

- Integrated management planning for PAs
- Biodiversity conservation and monitoring, including identification skills
- Wetland management and restoration
- Community-based conservation and co-management approaches
- Wildlife crime and law enforcement (for rangers and forest police)
- Communications, education and public awareness
- PA business planning and financing
- Sustainable ecotourism

This list will be re-confirmed at the start of the project.

125. The development of both strands for this output will be secured through a service contract to a specialised institute or university that will provide overall coordination and experts to design the strategic training programme and develop and help deliver the series of training modules. The integration of this work into the daily management of the FMAs will be supported by the Local Technical Advisor. Each module will be designed in a standardised and participatory way with relevant PA staff, so that the module can be integrated into the long-term strategic training programme described above. Each module will include a detailed programme for delivery (usually over 3-5 days), Powerpoint presentations, advance study materials, and written hand-outs for field learning, as well as tests to determine competency standards. Delivery of each training module will comprise both teaching, and practical “hands-on, learning by doing” mainly undertaken at the two project demonstration sites, with participants drawn from these two sites, but also including “training of trainers” from other PAs who can roll-out the modules at their own sites. Participation of trainees from both FMAs will be encouraged, to ensure sharing of ideas and experiences. Some follow-up to the modules will also be offered to the most promising trainees through regional universities or other learning institutions as necessary. This might be in the form of distance learning approaches, post-graduate training opportunities or attendance at specialised courses.

Output 2.5: PA and biodiversity information management system significantly improved

126. Work under this output is designed to establish a platform for gathering, sharing and communicating information on protected areas and biodiversity across the Daxing'anling landscape (under the framework provided by the MSL national-level project). Much information is already collected by the different FMAs and provincial government departments, but is not available in a harmonised, up-to-date and user-friendly way across the whole of the Daxing'anling landscape so that it can support better planning, management, decision-making and communications. Whilst in Heilongjiang, the Conservation Department as well as each NR already have their own web pages, in Inner Mongolia the information system only covers fire control and forest resources. Biodiversity information is lacking throughout.

127. An initial review will be undertaken of the existing websites and software to see whether these can be adapted or need replacing. In close coordination with the national project's database development, the necessary hardware and software (databases, GIS etc) will then be put in place to establish a Web and map-based Protected Areas and Biodiversity information system, comprising essential information about the Daxing'anling Landscape, the PA system, and individual PAs (maps, objectives, zoning, facilities, access etc..) and related human activities (eg ecotourism facilities and networks), species inventory, status and trends of key species and habitats. Information should be made available at three levels: the Daxing'anling Landscape, the two province sections, and individual PAs. Gaps in information availability will be identified, and plans for filling the gaps will be devised. This could include targeted research, for instance on wildlife abundance distribution and, forestry activities. Training for the management and operation of the database will be provided and agreement will be reached on reporting and information sharing protocols between different provincial agencies. The database should be openly accessible online (with password protected pages for restricted access information) so that duly cleared information can be entered by authorised users (eg individual PA managers) and accessed by anyone. The database should accommodate the flow of new data from the field-based monitoring to be implemented under the project. A summary of information about the area will be made available in English to stimulate international cooperation and tourism.

128. Development of the database and associated webpages should be undertaken as a service contract, awarded to a qualified company or institution (with strong GIS capacity), supported by a task force of relevant FMA staff. The company will be responsible for operation and further upgrades to the software, but training will be provided such that the management of the data entry and reporting can be accommodated within the two FMAs.

Outcome 3: Effective PA management is demonstrated in the Duobuku'er NNR and the Genheyuan NWP

(Total cost: 7,867,679 US\$; GEF 1,967,679 US\$; Co-financing 5,900,000 US\$)

129. Work under this outcome will target the Duobuku'er National Nature Reserve (128,959 ha) in Heilongjiang Province and the Genheyuan National Wetland Park (59,060 ha) in Inner Mongolia, to demonstrate effective and adaptive PA management and the reduction of local threats to biodiversity. These two sites provide the potential for replication and up-scaling of effective PA management to the entire PA network, through hosting extensive capacity building for PA staff from other sites, and through developing best practice approaches, guidelines and regulations that can be used throughout the network. A

detailed description of these two sites, and the reasons for their selection is provided in Part III.

130. The mainstreaming work of Outcome 1 and strengthened wetland PA system management of Outcome 2 will be applied at the PA site level to establish model PAs with robust management and effective operational systems. Both PAs already have official Master Plans which provide detailed guidance on zoning and investment in physical and human infrastructure. However, these plans lack the necessary guidance for operational aspects of managing PAs with a particular emphasis on the conservation of biodiversity and the management of human activities (wise use). This will be achieved through: (i) the participatory development of an integrated management plan for each site (as models for other PAs); (ii) establishment of a biodiversity and ecological health monitoring system, with better equipment for monitoring; (iii) demonstration of effective biodiversity conservation systems, including for habitat restoration and conservation of threatened species; (iv) demonstration of effective management of human activities including ecotourism and visitor management; (v) establishment of participatory mechanisms for engagement of local communities (including co-management system for alternative livelihoods and community participation, as well as reducing overharvesting of forest products and hunting pressure), as well as a targeted communications programme through schools and the media aiming to raise awareness of the values of the region's biodiversity and its PA network. Staff training, tailored to improve management of the two PAs, will be an integral component of all of these activities and is covered through Output 2.4 for which work at the two demonstration sites will serve as examples of good practice.

131. The project will result in an overall improvement in the biodiversity within the two demonstration PAs, both as a result of habitat restoration measures and specific actions for threatened species, as well as reductions in the pressure on biodiversity through improved management and raised awareness of visitors and local people through co-management, education and interpretation programmes. The effectiveness of these interventions will be measured by increases in the METT score at both sites with a target of raising the baseline at each site by >20%, as well as by increase in the Ecosystem Health Index (EHI) for the two sites.

Output 3.1: Integrated management plans prepared in a participatory way, adopted and implemented

132. Both of the demonstration sites have officially approved Master Plans providing an overview of their legal establishment, baseline conditions, zoning and details of the planned human and financial investments and physical infrastructure developments. However, these documents do not provide adequate guidance to managers on the necessary measures to address threats, conserve biodiversity and manage human activities to sustainable levels, and have also not been prepared in a participatory way with the inputs of local communities. For this reason, the managers at both sites have identified the need to prepare integrated management plans in a participatory way with the engagement of local stakeholders.

133. Preparation of these integrated management plans will follow best international practice, for example using the management planning guidelines adopted under the Ramsar Convention. As a first step, these will be translated into Chinese for use throughout the Daxing'anling region. The process at each site will be led by the relevant PA managers supported by the Local Technical Advisor and the International Wetland Conservation specialist, with inputs from other specialists as required. The process will involve a series of inter-sectoral meetings, including local community representatives to agree the objectives and key actions to conserve biodiversity and secure sustainable use over a 5 year period. The

management plans will also include a clear process for monitoring biodiversity and human use outcomes. Once completed, the management plans will be submitted for approval to the FMB for implementation.

Output 3.2: Biodiversity and ecological health monitoring systems in place

134. The PPG phase revealed the extremely limited availability of baseline information on biodiversity for the Daxing'anling Landscape and the PA network including the two demonstration PAs, and that capacity in this area of work is significantly below that required for effective management. This is particularly so for the Duobuku'er NNR, whereas the Genheyuan NWP does have a national monitoring station which has undertaken several studies.

135. The project will therefore develop and deploy a model ecological monitoring system for the two PAs that can be replicated for the entire Daxing'anling PA network through the training activities described under Outcome 2. This will involve: a) the selection of a limited number of indicator and flagship species (and taxonomic groups) to be monitored building on the work already undertaken for the EHI assessments b) the definition of standardised monitoring methodologies (such as annual breeding bird surveys, migratory waterbird counts, regular transects for large mammal recording (snow-prints, dropping counts, camera traps); c) standardised recording and reporting procedures.

136. This monitoring system will be designed in a participatory way with the end-users by a team led by a Biodiversity Monitoring specialist and the ecologists from the University/specialised institution contracted under Output 2.4 to prepare the training module on this subject. Close linkage and cross-fertilisation will be maintained with the other MSL projects. Targeted training will be provided to PA staff, community volunteers and data management experts on developing a monitoring plan, species identification and survey techniques, data collection and reporting. Guidelines based on the work undertaken at the two demonstration sites will be developed and published for use throughout the PA system.

137. Both demonstration sites are seriously lacking in operational equipment needed for monitoring biodiversity (and patrolling human activity and enforcing regulations) over such large areas. The project will ensure that PA field staff have the equipment necessary for them to undertake their operational duties including biodiversity monitoring and basic research, patrolling and enforcement which will include vehicles, motorbikes for rangers, communication equipment such as cell-phones, GPS, field identification guides, binoculars, telescopes, camera traps, water quality monitoring kits, and other basic tools. Necessary training in the use and maintenance of such equipment (for environmental monitoring, wildlife research, etc.) will be provided, together with a maintenance plan as appropriate. Most of the equipment will be covered as part of the government co-financing. GEF expenditure on this aspect will be mainly limited to biodiversity monitoring equipment. It is important to emphasise that field equipment also requires both physical and financial resources for storage, maintenance and operation, costs that must be borne under the government operational budget.

Output 3.3: Effective and adaptive conservation of biodiversity is demonstrated through restoration of degraded habitats and recovery measures for threatened species

138. Model approach to the restoration of degraded habitats. This work will target issues that have led to degraded habitats and loss of biodiversity within both of the demonstration

PAs, with the objective of delivering an overall improvement in habitat quality and biodiversity by the end of the project, as measured by the monitoring system under Output 3.1 and improved METT and EHI scores. The issues to be targeted are:

- a. **Restoration of artificially afforested (open) wetland habitats.** Large areas of open wetland habitats, particularly in the Genheyuan NWP (up to 1/10th of the entire area), have been artificially planted with coniferous trees for forestry objectives. These plantings have generally been both inappropriate and unsuccessful, leaving degraded wetland habitats, and stunted trees of no future commercial value. Trials have shown that these areas can be restored by removing the trees and blocking the ditches that were formed to create the planting lines. **The project will therefore support restoring of these areas.**
- b. **Restoration of roadside quarries and other disturbed forest habitats.** Materials have been quarried alongside the roads within the PAs for the purposes of road construction (eg 300km in the Genheyuan NWP). These shallow quarries were not restored when road construction was completed leaving visible scars on the landscape in areas used frequently by visitors. The project will therefore support restoration of both the visual and biodiversity values of these areas through relatively simple management measures such as ground levelling and re-seeding/planting (which have already been successfully trialled in the Genheyuan NWP). Similar approaches will be used for other disturbed habitats such as areas where buildings have been removed.

For each of these issues, the following approach will be taken, as necessary: a) PA managers, supported by specialists as necessary will undertake an assessment of the issue and identify priority areas for restoration; b) the management options available (including no management) will be defined, and the most appropriate options selected; c) where experimentation is necessary experimental and control plots will be established to trial the management techniques; d) the management actions will be implemented and the results monitored; e) management guidelines will be published and promoted for use in other PAs, and training courses will be conducted as part of the capacity building programme of Outcome 2. Formal partnership programmes will be established with relevant universities to engage MSc and PhD students as well as undergraduate courses to assist delivery of this output.

139. Conservation measures for threatened species: The lack of baseline data on the status of globally and nationally threatened species for the two PAs, and the lack of concerted measures to improve their status is a major weakness in the management of the protected areas in the Daxing'anling region. This Output will therefore establish a model programme for the conservation of globally and nationally threatened species in the two demonstration sites. An experienced biodiversity consultant will therefore lead a team of ecologists, PA staff and community volunteers to develop and implement a threatened species action plan, including mapping and assessment of the status of each species, identifying and removing threats, undertaking specific conservation measures. The programme will be documented and shared with other PAs throughout the Daxing'anling region through the capacity building programme under Outcome 2. Formal partnership programmes will be established with relevant universities to engage MSc and PhD students as well as undergraduate courses to assist delivery of this output.

Output 3.4: Sustainable use of biodiversity demonstrated through high quality planning, enhanced co-management arrangements and better law enforcement

140. Development of the integrated management plans for both sites will provide the framework for ensuring that any human use of the natural resources within each site is sustainable. The project will focus implementation on three priority human activities/uses that are either opportunities or challenges for effective management: ecotourism, sustainable agriculture (Duobuku'er NNR only), and non-timber forest products harvesting. For each of these subjects, the primary approach will be to develop co-management arrangements that deliver benefits to local communities while also securing the sustainable use of resources. This approach will however also be backed up by more effective enforcement, achieved through better equipping and training of the PA rangers. Working more closely with the community will also assist law enforcement activities based on raised awareness and the community agreements signed.

141. The project will promote these alternative livelihood options in order to support the transition of the local economy from the forestry dependent economy. Necessary safeguards will be put in place in order to avoid over exploitation of these products. At present, because of the low population density of the area, the level of collection of the non-timber products is still well within the carrying capacity of the resources, although local over-exploitation may occur.

142. Several different activities will therefore be centred under this output, to develop a local co-management framework that secures substantial participation of neighbouring communities including women, men and minority groups. This framework will include new co-management mechanisms and potential socio-economic contributions or compensations that may be gained from collaboration amongst the parties. Where co-management already has some history, such as for the seasonal farmers in the Duobuku'er NNR, already successful approach(es) should be improved or adapted to make a model approach. However, successful models of collaborative management developed elsewhere in China will also be explored and/or refined in the light of the local situation and the majority interests of the community. These could include stewardship programs, contractual arrangements, concessions, voluntary partnerships, co-management projects, indigenous initiatives, business-driven models of resource use, community cooperatives. There are many different approaches within the broad conceptual approach of 'collaborative management' that are already present, at least in trial and documented form, elsewhere in China. The project will learn from this wealth of experience; no single or particular co-management approach should *a priori* take dominance in the project. What works best is what is driven and owned by the local community with support from government and the project.

143. The project will also explore how Payment for Ecosystem Services (PES) and other eco-compensation mechanisms could be developed for local community benefit in light of their incurred costs (opportunity loss) due to environmental restrictions or as payment for their active, regular participation in agreed conservation activities such as resource monitoring, patrolling etc..

144. Model ecotourism development. Tourism provides an important opportunity for alternative livelihood development in the Daxing'anling region. Ecological and cultural tourism is identified as a high priority for development in the *Master Plan of Ecological Conservation and Economic Transition in Daxing'anling and Xiaoxing'anling Forested Region*, and there is a strong interest in developing low-impact ecotourism within the PAs. This situation presents a unique opportunity for convergence of interests between regional economic development (tourism in general), local community benefit (with development of community-based tourism), and nature conservation and PA development (through planning for tourism in/near PAs, and development of ecotourism that benefits both conservation and

local communities). Such synergies will be encouraged in the project, both to ensure that tourism development is sustainable and that conservation opportunities are maximized.

145. Development of ecotourism facilities and systems is already included in the Master Plans of the two demonstration PAs, but implementation is only just starting.

- Duobuku'er NNR already receives about 10,000 visitors per year and a rafting centre has been developed by the FMB as a tourism facility by the edge of the Duobuku'er river. However, there is limited accommodation and no education or interpretation facilities for visitors. There are good possibilities to expand the tourist experience and provide greater access to the reserve with signed walkways and cycle trails with resting places.
- Ecotourism developments in the Genheyuan NWP are slightly more advanced, although the Park is not yet officially open for visitors. A quality campsite is nearly finished, with tents, caravans and wooden huts for rent, and the Park has a vision for 500-1800 tourists per day in the summer season. This is the only facility of its kind in NE China, and potentially an example of good practice. Simple rafting facilities and a wooden walkway are also under development, and there is an aim to run "wilderness survival" courses. Again, there are no interpretation facilities as yet.

The two demonstration sites therefore provide an excellent opportunity for developing and demonstrating model ecotourism facilities and management. A key issue is how ecotourism development can be developed to provide greater financial sustainability for the PAs, as well as alternative livelihood options for local people without threatening biodiversity. Under this output, the project will hire both national and international consultants to assist the managers of both sites to develop and implement model eco-tourism plans which address key issues such as market research and marketing, tourism management, "green" facilities, waste management, training for local communities (particularly women and minority groups for example to demonstrate traditional local customs, make and sell handicrafts etc.. This component of the project will also interact closely with work on sustainable financing.

146. Harvest of non-timber forest products. This traditional activity is an important source of food, income and employment for local communities in the area, and concerns the harvest of berries, fungi, wild vegetables and medicinal plants at both of the demonstration sites. Many industries have developed in the area based around this harvest (for example juice-making from cranberries and lingon berries, and extracts from mushrooms) and these are an increasingly important opportunity for alternative livelihoods to replace the reduction in forestry. Harvesting activities are already regulated within each PA by allowing harvesting only within certain zones. While the level of collection of the non-timber products is still probably within the carrying capacity of the resources, there is concern amongst the PA managers about the increased harvesting pressures and the potential for the harvest to be unsustainable, leading to an overall decline in biodiversity. Whilst the project will promote these alternative livelihood options in order to support the transition of the local economy from forestry, necessary safeguards must be put in place in order to avoid over exploitation of these products.

147. The project will engage a consultant on co-management to assist local stakeholders to develop a model approach for berry harvests from wetlands, that can later be applied to other NTFPs. The project will work with scientists, the PA managers and the users to establish guidelines and agreements (and if necessary regulations) for harvesting, co-management systems (eg cooperatives or concessions), to put in place appropriate monitoring systems and

explore alternatives to reduce the pressure on the natural resources – such as by farming of some of the products outside the protected areas.

Output 3.5: PA management effectiveness at the demonstration sites improved through local community participation and raised public awareness

148. The current process for planning the establishment and management of the PAs in the Daxing'anling region including the two demonstration sites is largely “top down”, with little evidence of community involvement in decision-making. Indeed, the history of establishment of these PAs was one of compulsory re-location of villagers who lived within the PA boundaries into the neighbouring towns. Today, there are no permanent local residents within these PAs except for PA staff, and no formal mechanism to encourage community participation. Despite this, there is public support for the protected areas; “Wetland” and “Bird-Loving” days are celebrated at both sites, and many volunteer inputs are provided each year (particularly for the Genheyuan NWP – habitat restoration, rubbish collection etc).

149. Much stronger local community engagement will be a core objective for all aspects of implementation of the project, with a particular emphasis on youth, women and minority groups who are currently under-represented in activities relating to the PAs because of the previous focus on forestry which is largely a male-dominated industry. A Community Forum will therefore be established for each of the demonstration PAs to strengthen community engagement and to enhance the overall governance of the PAs. Members will be selected to represent key community interests (local civil institutions, schools, youth, minority groups, women, the health sector, disabled people, the private sector), initially through the identification of potential “champions”, but by the end of the project through a formalised process. The Forum will meet three times during the first year, and thereafter at minimum twice each year with the managers of the PAs. The aim will be to provide advice to the PA managers on the management of the area in terms of community aspirations and needs, and to develop mechanisms for greater community involvement, including through volunteering, community open days, health activities, educational activities etc. The use of traditional knowledge will also be revitalized, particularly learning from the local Aolugoya tribe ((Genheyuan NWP) and elders in the wider community. The main purpose is to demonstrate successful participatory approaches to PA management from which a suite of good practices can be identified and shared through the capacity building programme of Outcome 2, leading to a scaling-up of community participation throughout the Daxing'anling PA system.

150. The Community Forum will also advise on the development of a Communications, Education, Participation and Awareness (CEPA) Plan. This will aim to raise awareness and understanding of the values of the PAs and biodiversity conservation through a targeted education and public awareness programme by working with schools (education programme, including PA visits), the media (TV programmes and press releases) and activities at the individual PAs (interpretation facilities, community open days etc.). A particular focus will be given to those populations resident immediately around the two demonstration sites, as well as in Jiagedaqi and Genhe cities – but also throughout the Daxing'anling landscape and two provinces and where relevant in national level media. The CEPA plan will be developed through a contract to a specialised organisation working with a small task force established for each of the demonstration sites, and will then be implemented by the PA staff working with relevant stakeholders. It will use best practice approaches in this field, such as the Ramsar Convention's CEPA guidelines and toolkit. The plan will include quantitative assessment of baseline public awareness and tracking progress during the course of the project. The CEPA work will be shared with other PAs through the capacity building

programme of Outcome 2, leading to a scaling-up of public awareness and understanding throughout the Daxing'anling PA system.

151. Model visitor management, interpretation and infrastructure. The PAs throughout the Daxing'anling region provide a tremendous resource for raising public support for biodiversity conservation, and there is a strong interest to attract visitors for recreation, study and tourism. However, development of the necessary interpretation and educational facilities and programmes is in its infancy at both of the demonstration PAs. In the Duobuku'er NNR there are virtually no interpretation facilities (except buildings) for visitors, but excellent potentials to create a high quality visitor information/education centre using state-of-the art interpretation media, as well as educational walkways into different habitats of the NNR. Similarly, in the Genheyuan NWP there are excellent potentials, and work has already begun to create a number of viewing points, and there are plans for a state-of-the-art wetland centre. An interpretation and visitor management plan will therefore be developed and implemented for both demonstration sites through a contract to a specialised organisation (as for the CEPA plan), working with a team of PA staff, community representatives and local educators from local primary and secondary schools. This will build on the best practices achieved elsewhere in China, for example the Mai Po marshes in Hong Kong, and internationally. The interpretation plans will be fully documented and shared through the capacity building programme under Outcome 2, leading to an up-scaling of the interpretation programmes with other PAs throughout the Daxing'anling region.

152. **Global Benefit:** By implementing the above-mentioned activities, the project is expected to achieve significant global benefits. These will be achieved from the reduction of pressures on biodiversity through an improvement in PA management effectiveness in the Daxing'anling Landscape of over 3.1 million ha. of PA estate that will lead to improved biodiversity status in PAs. This will improve the efficacy of PAs as a mechanism to address current threats and likely climate change. In particular, the demonstration work at the Duobuku'er NNR and Genheyuan NWP will have global biodiversity impacts covering an area of over 188,019 ha. These PAs include extensive wetlands providing habitats for globally threatened species such as *Alces alces cameloides*, *Mergus squamatus*, *Grus leucogeranus*, *Grus vipio* (see Table 2).

PROJECT INDICATORS

153. The project indicators are contained in Section II / Part I (Strategic Results Framework) and include a number of 'SMART'²⁰ impact (or 'objective') and outcome (or 'performance') indicators and targets.

154. The organisation of the log-frame is based on the general assumption that: if (1) biodiversity and protected areas are mainstreamed into the development and sector planning frameworks, and the system of protected areas is expanded; and (2) if the management effectiveness of, and funding for, the PA system across the Daxing'anling Landscape is greatly strengthened; and (3) if effective management is demonstrated at the two demonstration sites for replication across the PA network; then the ability of protected areas to respond to threats to the globally significant biodiversity in the Daxing'anling Landscape will be greatly enhanced. This logic is based on the barrier and root-cause analysis carried out during the PPG phase (see Section I, Part I, chapter 'Long-term solution and barriers to

²⁰ Specific, Measurable, Achievable, Relevant and Time-bound.

achieving the solution’).

155. In turn, the choice of indicators was based on two key criteria: (i) their pertinence to the above assumption; and (ii) the feasibility of obtaining / producing and updating the data necessary to monitor and evaluate the project through those indicators. The methods used to establish the baseline and to track progress towards the end of project targets for each of the key indicators are summarised in Table 9:

Table 9: Definition and measurement methods for the Objective & Outcome indicators

Indicator	Explanatory note
OBJECTIVE: To strengthen the management effectiveness of protected areas to respond to threats to the globally significant biodiversity in the Daxing’anling Landscape of Heilongjiang Province and Inner Mongolia Autonomous Region.	
Financial sustainability score (%) for provincial section systems of protected areas	<ul style="list-style-type: none"> Derived from the <i>Financial sustainability scorecards for national systems of protected areas</i> (UNDP, 2010), applied to the entire system of PAs in each of the Heilongjiang and Inner Mongolia sections of the Daxing’anling. Calculated separately for the three components (Legal, regulatory and institutional frameworks; Business planning and tools; Tools for revenue generation), plus an overall score calculated as actual score as a % of total possible score. The baseline was set during the PPG, and will be repeated at mid-term and end of project.
Average METT score of sample of 11 PAs in the Daxing’anling landscape as recorded in the BD-1 Tracking Tool	<ul style="list-style-type: none"> Derived from the <i>Management Effectiveness Tracking Tool</i> scorecards (WWF, 2007) applied to the two project demonstration sites (presented separately) and a further 9 PAs to monitor the project’s replication impact. The baseline was set during the PPG, and will be repeated at mid-term and end of project.
Status of selected indicator species that are rare and threatened (including inter alia: <i>Lynx lynx</i> , <i>Ursus arctos arctos</i> , <i>Alces alces</i> , <i>Lepus timidus</i> , <i>Tetrao parvirostris</i> , <i>Bonasia bonasia</i> , <i>Grus vipio</i> , <i>Grus leucogeranus</i> , <i>Aix gallericulata</i> , <i>Brachymystax lenok</i> , <i>Astragalus mongholicus</i> , <i>Chosenia arbutifolia</i>)	<ul style="list-style-type: none"> No suitable data existed at the time of the PPG to set a baseline. However these potential landscape-scale indicator species were identified as a result of the PPG findings and work on a draft monitoring protocol linked to the EHI work. Within 4 months of the start of the project, a Task Force from the 2 Daxing’anling FMAs, supported by relevant experts will have: a) confirmed the final agreed list of indicator species; b) decided on the PAs to be included for monitoring; c) agreed the monitoring methodologies (based on the draft monitoring protocol; d) agreed the procedure for setting a baseline before the end of Year 1 (including training for PA staff, supplemented by expert interventions). Thereafter, monitoring will be conducted annually. It is recommended that at least all NNRs and NWP’s contribute to the monitoring programme.
Number of new jobs created for local people from sustainable use of PAs	<ul style="list-style-type: none"> The number of new jobs created for local people from sustainable use of the PAs, particularly through ecotourism, will be analysed from the annual PA network reports of the two FMAs. In particular, the number of jobs created for women and for indigenous people will be assessed.
Outcome 1: Development planning frameworks for the Daxing’anling Landscape provide the enabling environment for expanding the forest and wetland PA network and mainstreaming biodiversity as an asset for sustainable development	
Biodiversity conservation strengthened through monetary and non-monetary valuation of ecosystem services	Monetary and non-monetary valuation of the ecosystem services to be assessed for a) whole Daxing’anling Landscape, b) the PA network, c) the two individual demonstration sites. All ecosystem services to be assessed, but with focus on water supply (quantity and quality) and flood regulation, carbon sequestration, tourism, timber products, natural foods and medicinal plants. Also assess the costs of inaction.
Threats reduced by	Intersectoral coordination groups to mainstream biodiversity established for each

Indicator	Explanatory note																		
mainstreaming biodiversity conservation and the PA system within the sectoral and development planning frameworks, indicated by effective intersectoral coordination and plans incorporating biodiversity conservation measures	<p>province section (Project Coordination Groups, meeting 4 times p.a.), and for inter-provincial section coordination (Daxing'anling Biodiversity Conservation Committee, meets 2X p.a.).</p> <p>Biodiversity issues mainstreamed throughout the 13th Provincial Development Plans and into at least 2 sectoral plans (among forestry, tourism, agriculture, water, mining), including clear safeguard measures in sector practices. Safeguard standards and measures will ensure that land uses in and outside PAs particularly in areas directly affecting the integrity of wetland biodiversity within the PAs and their broader landscape are regulated.</p>																		
<p>Expanded and more representative PA system approved</p> <p>Area of PAs upgraded to National status</p> <p>Area of PAs upgraded to Provincial status</p>	<p>Expanded PA network, measured by the area of new or extended PAs gazetted (hectares), and the area of natural wetlands</p> <p>Upgraded PA network measured by the area of existing PAs that is upgraded in status to either provincial or national levels (including both the existing and newly established PAs)</p> <table border="1"> <thead> <tr> <th>Protected Grade</th> <th>PA Coverage (million ha) in Project Document</th> <th>PA Coverage (million ha) in PIF</th> </tr> </thead> <tbody> <tr> <td>Wetland-Type Nature Reserve</td> <td>1.136</td> <td>1.67</td> </tr> <tr> <td>Forest-type Nature Reserve</td> <td>1.833</td> <td>1.19</td> </tr> <tr> <td>Wetland Park</td> <td>0.13</td> <td>0.13</td> </tr> <tr> <td></td> <td>3.1</td> <td>2.99</td> </tr> </tbody> </table>	Protected Grade	PA Coverage (million ha) in Project Document	PA Coverage (million ha) in PIF	Wetland-Type Nature Reserve	1.136	1.67	Forest-type Nature Reserve	1.833	1.19	Wetland Park	0.13	0.13		3.1	2.99			
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Outcome 2: The management effectiveness of the PA network across the Daxing'anling landscape is greatly strengthened																			
Capacity development scorecard (%) for the protected area system	Derived from the <i>Capacity scorecards for national systems of protected areas</i> applied to the entire system of PAs in each of the Heilongjiang and Inner Mongolia sections of the Daxing'anling. The baseline was set during the PPG, and will be repeated at mid-term and end of project.																		
Landscape level PA financing (for salaries and operational costs) increased to close the existing annual financing gap by 50% for basic expenditure scenario (planned through business plans and tracked with PA financial sustainability scorecard)	<p>Derived from information provided in the <i>Financial sustainability scorecards for national systems of protected areas</i> (UNDP, 2010), applied to the entire system of PAs in each of the Heilongjiang and Inner Mongolia sections of the Daxing'anling. The baseline was set during the PPG, and will be repeated at mid-term and end of project.</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>Gap</th> <th>Total basic</th> <th>50% gap closure Target</th> <th>15% gap closure target</th> </tr> </thead> <tbody> <tr> <td>HJ</td> <td>2.980 M</td> <td>18.683 M</td> <td>21.663 M</td> <td>12.322 M</td> <td>5.783 M</td> </tr> <tr> <td>IM</td> <td>4.083 M</td> <td>3.061 M</td> <td>7.144 M</td> <td>5.614 M</td> <td>4.542 M</td> </tr> </tbody> </table>		Baseline	Gap	Total basic	50% gap closure Target	15% gap closure target	HJ	2.980 M	18.683 M	21.663 M	12.322 M	5.783 M	IM	4.083 M	3.061 M	7.144 M	5.614 M	4.542 M
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HJ	2.980 M	18.683 M	21.663 M	12.322 M	5.783 M														
IM	4.083 M	3.061 M	7.144 M	5.614 M	4.542 M														
Increase in annual operational budget for PAs	\$ 480,000 out of total operational budget (\$ 7.063 million) of the Heilongjiang and Inner Mongolia for the Daxing'anling PAs is available for actual PA management work on the ground. The rest is for staff cost.																		
Number of trained staff with certified competency standards	Measured from the records of the training section to be established as part of the project, as well as (initially) the reports of training courses.																		
Reduction in illegal incidents within the PAs – poaching, illegal harvesting, etc., despite improved activity of	The number of illegal incidents will be measured from annual Police records.																		

Indicator	Explanatory note
rangers	
Outcome 3: Effective PA management is demonstrated in the Duobuku'er NNR and the Genheyuan NWP	
Management effectiveness increased in both demonstration sites (based on METT scores)	Derived from the <i>Management Effectiveness Tracking Tool</i> scorecards (WWF, 2007) applied to the two project demonstration sites (presented separately) to monitor the project's replication impact. The baseline was set during the PPG, and will be repeated at mid-term and end of project.
Ecosystem Health improved (based on EHI Score)	Ecological health will be measured through the EHI scorecards system. The baseline was set during the PPG, and will be repeated at mid-term and end of project. See Annex 3. A specific programme for monitoring key species, habitats and other environmental factors will also be established. A preliminary list of indicators and methods was agreed during PPG and will be confirmed and implemented in Year 1 and thereafter.
Net gain in area of natural habitats (forest and wetlands)	This will be achieved through the restoration of roadside quarries, artificially afforested wetlands, disturbed areas and agricultural lands. No precise data was available on the extent of these habitats at the time of PPG. The net gain (target 0.5% of the PA area) will be measured annually for each demonstration site from assessment of the area of habitats restored.

156. The project will also develop a certain number of process-oriented indicators to strengthen the 'M&E framework' at the site level. These indicators will be incorporated into the annual work planning from Year 1 onwards, and are expected to feed into the project's overall M&E framework, which will build on UNDP's existing M&E Framework for biodiversity programming. Table 10 provides a preliminary list of these process-oriented indicators.

Table 10: Preliminary list of process-oriented indicator-targets for end of project

Outcome	Process-oriented indicator-targets for end of project
Outcome 1: Development planning frameworks for the Daxing'anling Landscape provide the enabling environment for expanding the forest and wetland PA network and mainstreaming biodiversity as an asset for sustainable development	
1.1	<ul style="list-style-type: none"> ▪ Comprehensive monetary and non-monetary valuation of ecosystem services completed (report) ▪ Wide range of communications to raise awareness of report (policy briefings, series of media releases, films, web pages and high quality presentations that can be used by educators and PA communications staff)
1.2	<ul style="list-style-type: none"> ▪ Inter-sectoral and inter-provincial coordination groups operating to mainstream biodiversity
1.3	<ul style="list-style-type: none"> ▪ Approved action plan for biodiversity conservation and sustainable use
1.4	<ul style="list-style-type: none"> ▪ Systematic review of PA coverage completed ▪ Expanded and upgraded PA network
Outcome 2: The management effectiveness of the PA network across the Daxing'anling landscape is greatly strengthened	

Outcome	Process-oriented indicator-targets for end of project
2.1	<ul style="list-style-type: none"> Approved strategic plan to strengthen PA institutions, procedures and investment
2.2	<ul style="list-style-type: none"> Regional guidelines and regulations to improve systemic capacity for effective PA management (eg. upgrading of the “wetland regulations” for application of the ecosystem approach, guideline on alien invasive species, and at least 3 guidelines or regulations to improve environmental standards in different sectors eg tourism, agriculture, mining)
2.3	<ul style="list-style-type: none"> 5 year PA system business plans for each province section Model business plans and new income sources demonstrated for the Duobuku’er NNR and Genheyuan NWP Report with recommendations for strengthening both traditional and novel sources of PA financing
2.4	<ul style="list-style-type: none"> Strategic PA training programme established and institutionalised with certified competency standards 300 PA trainees certified in at least 5 subject areas
2.5	<ul style="list-style-type: none"> Web-based biodiversity and PA information system established
Outcome 3: Effective PA management is demonstrated in the Duobuku’er NNR and the Genheyuan NWP	
3.1	<ul style="list-style-type: none"> Approved integrated management plans developed through a participatory process with appropriate governance arrangements
3.2	<ul style="list-style-type: none"> Biodiversity and ecological health monitoring system introduced
3.3	<ul style="list-style-type: none"> Restoration measures undertaken for 2 degraded habitats Threatened species action plan being implemented for priority species
3.4	<ul style="list-style-type: none"> Model ecotourism plans being implemented Co-management agreements in place for harvest of berries from wetlands, eco-tourism, etc
3.5	<ul style="list-style-type: none"> Community forums operational Communications, Education, Participation and Awareness (CEPA) Plan Model visitor management and interpretation facilities in place

PROJECT RISKS

157. The following potential risks and mitigation measures have been identified. These risks and the mitigation measures will be continuously monitored and updated throughout the project, and will be logged in ATLAS and reported in the PIRs.

Table 11: Risk Table

Risk	Rating	Mitigation Measure
<p>Mainstreaming biodiversity and PAs into development and sectoral planning process and policies will be hindered by poor inter-agency coordination, lack of incentives for other sectors and poor enforcement of agreed priorities and plans that may be incompatible with major engineering-oriented development programmes.</p>	<p>Medium</p>	<p>Given the importance the central Government has put on ecological management of this region because of the fact that the Daxing'anling Landscape is the source of the major river in NE China and plays a key role in climate change mitigation, there is an added impetus for all agencies across the area to work together and the project has been formulated with this spirit of partnership. Although this risk was historically high, the currently strong emphasis on ecosystem protection and rehabilitation and the vision of the <i>Master Plan for Ecological Protection and Economic Transition of the Daxing'anling and Xiaoxing'anling Regions</i> means there should be sufficient power for the SFA and provincial Forest Management Agencies to exert their influence and there should be sufficient incentive for sector agencies for mainstreaming. The project will support establishment and institutionalisation of the inter-sectoral coordination mechanisms at the landscape level for joint planning, approval of policy, programmes and legislation at provincial level with participation of key biodiversity impacting sectors and agencies. The project will support development of tools and safeguards specific to forestry and wetlands, agriculture, tourism and mining sectors in support of mainstreaming. In addition, the active participation of the private sector, local communities, scientists and other members of civil society in the project development and implementation will also be helpful to mitigate this risk. Success in the Daxing'anling region can be up-scaled to national level using the successful coordination mechanisms now in place in several other provinces through a BSAP process and using the CBPF forum.</p>
<p>Severity of climate change may undermine conservation efforts promoted by the project through changes in permafrost, water availability, biodiversity distribution, community resource use intensities etc.</p>	<p>Medium</p>	<p>Given that climate change impacts are likely to increase over the long term, the project will assess these changes as part of the PA system analysis and propose actions and management approaches to increase ecosystem resilience (in part by addressing non climate change related anthropogenic stressors on ecosystems). These will include realignment of wetland PA zones and boundaries and improving functional connectivity. Migration patterns and timings may change, requiring adjustments in the PA design to accommodate migratory species. These measures are expected to help in addressing threats of climate change to biodiversity in the region. The long and harsh winters make the area unprofitable for agriculture except in the very south; in the long-term there may be some further threat from agricultural expansion if the climate warms significantly.</p>
<p>Coordination of action between SFA and other PA management authorities proves difficult, as a result of institutional rigidities—thus undermining the conservation efforts promoted through the project.</p>	<p>Low to medium</p>	<p>The Government has recognised the need for better coordination, and has specifically requested support to develop the coordination apparatus, as a key measure to improve environmental governance. The project is fully positioned as an integral part of the CBPF, in order to ensure that it contributes directly to overall biodiversity conservation efforts of the country through implementation of the NBSCAP. CBPF and NBSAP implementation fora will be fully utilised in order to ensure essential coordination between the PA management authorities. During project preparation, initial consultative efforts have laid the basis for the creation of a new, permanent inter-agency coordination and management committee for each province section of the Daxing'anling (Project Coordination Groups) and for the landscape as a whole (Daxing'anling Biodiversity Conservation Committee) (Output 1.2).</p>
<p>After 2013, China will launch a new round of government institutional reforms to mainstream the people's livelihood-related issues (such as increasing incomes, regional equality, and health) into the agenda of governments. This may reduce the focus on environmental protection</p>	<p>Low to medium</p>	<p>Biodiversity conservation and people's livelihoods are closely interlinked, in particular in terms of forest and wetland resource production, clean and sustainable water provision, as well as disaster mitigation. The project will ensure that these inter-linkages will be adequately acknowledged by policy makers at provincial and local levels as well as by the general public. The project will support necessary strategic studies and the production of practical tools and materials to foster better understanding of the contributions of biodiversity and PAs to the economy and peoples' welfare and livelihoods. Furthermore, the project will promote co-management and equitable sharing of benefits from PAs, as well as the establishment of eco-compensation mechanisms to provide increased opportunities for the local households, communities and institutions engaged in biodiversity conservation to</p>

(including wetlands), disproportion the national investment and budget on wetland conservation and PA planning in national revenues, and thus hinder the process of achieving wetland conservation objectives.		directly benefit from conservation-oriented activities. The project will actively support Communication, Education, Participation and Awareness (CEPA) as tools for conservation and wise use of biodiversity resources.
Even under more integrated and participatory management, economic development interests of communities will override conservation priorities, leading to continued loss and degradation of biodiversity	Low	There is a strong commitment from national and local Government to the conservation of the valuable ecosystem services provided by the Daxing'anling Landscape as indicated by large reduction in forestry quotas, and increases in PA area. In addition the government is already experimenting with a variety of models of eco-compensation schemes for the benefit of local communities, and it is anticipated that rewards for good stewardship of ecosystem can be greatly improved over coming years. New businesses based around high added-value processing of timber and non-timber forest products are bringing new income to the area, and ecotourism is being given high priority. All these will depend on restoring a high quality environment.

INCREMENTAL REASONING AND EXPECTED GLOBAL, NATIONAL AND LOCAL BENEFITS

158. The Government of China has clearly identified biodiversity conservation as a priority and strengthening the PA system is a fundamental pillar of the country's biodiversity conservation strategy as evident in the NBCSAP and CBPF. Although the country is making significant investments and efforts for PA planning and management, **under the baseline scenario without the GEF investment**, global biodiversity conservation and financing in the Daxing'anling region will remain at a basic level and will not gain wider support from multiple stakeholders— including different government departments and programmes, local communities and the private sector. Sector activities in particular forest management, agriculture and construction works will continue to have negative impacts on biodiversity and PAs. Systemic and institutional capacity for mainstreaming PA objectives in development planning and management will remain weak with rigid and un-implementable PA regulations, resulting in a major discrepancy between actual management on the ground and what the regulations stipulate. The PA planning will continue to be ad hoc and vulnerable to climate change, without any landscape-level PA system plan which takes into account the potential climate change impact on biodiversity. Biodiversity information will be scattered and not easily accessible for use in PA management and sector planning.

159. Inadequate resources for PA operations and inadequate capacity of PA staff will continue to hamper the progress for PA strengthening. Currently, there are no implementation plans (excluding this project) by the SFA or provincial governments to bring about any significant reforms to strengthen the PA management across the Daxing'anling region, although this is implied in the *Master Plan of Ecological Conservation and Economic Transition in Daxing'anling and Xiaoxing'anling Forested Region*. Though the need to strengthen the financial and human resources for PA management is recognized, without technical support from the project any follow-up actions will be limited in nature and will not be informed by best available knowledge and practices from China and around the world. Some issues related to sustainable financing may be addressed at some sites, but the requisite comprehensive and systemic approach to financing is unlikely to occur without this project's support, and infrastructure financing will dominate in the mind of most PA planners and provincial decision-makers. The national forest eco-compensation scheme will be used largely for paying salaries and infrastructure measures which may have little impact for

improving ecological conditions of the PAs, or enhancing livelihood options for local people. Capacity building of PA staff will be insufficient and will not bring about significant changes in overall capacities of PA managers. At the individual PA level, under the baseline, different sectors will continue to promote their agenda and actions without due consideration to their impacts on biodiversity in and adjacent to PAs and this may actually increase future costs of amelioration of biodiversity loss and degradation. Human-wildlife conflicts will continue and levels of participation in PA management and support by local people for conservation activities will remain low. It is unlikely that any formal and sustainable co-management framework or actual new examples of co-management will be established without support of this project.

160. **Under the alternative GEF scenario**, the Daxing'anling's PA system will be significantly strengthened, better fulfilling its objective for biodiversity conservation as well as supporting sustainable development in the region. Under this scenario, the legal framework for the management and regulation of PAs in the Daxing'anling region will be strengthened through development of specific regulations. The required institutional arrangements and coordination mechanisms will also be permanently improved through mainstreaming the PA system in provincial development and sectoral planning processes and through proving the economic value of the biodiversity and the PAs of the Daxing'anling region. The project will provide a sound basis for monitoring biodiversity, planning a coherent PA system both to protect representative samples of biota found today and also designed to meet the challenges posed by rapidly changing climate. The alternative scenario will equally provide the additional capacity needed to address illegal poaching, ill-conceived afforestation programmes in wetland areas, over-harvesting of non-timber forest products, tourism development and insensitive engineering projects. The mind-set shift of the provincial governments will be realised regarding the importance of PAs and how conservation policy shall be pursued, while also ensuring appropriate/sensitive community development through eco-compensation schemes and alternative/supplementary income sources that will have truly long-term and effective impacts on ecosystems and local peoples' livelihood.

161. A much enhanced participation of local communities in the governance and management of the PAs will be achieved through raised public awareness, the development of Community Forums and the establishment of co-management arrangements for various activities. Such a system will lead to greater understanding of the objectives of PA management and adherence to the regulations, reducing the need to employ additional rangers in costly enforcement measures. At the same time, enhanced co-management arrangements will bring opportunities for remote and relatively poor local communities to derive economic benefits from the PAs, strengthening the relationships between protection authorities and resource users as well as helping the economic transition of the area from its dependence on unsustainable forestry to an environmentally sustainable model. **It is estimated that 900 jobs could be provided by the PA system in the region (300 for Inner Mongolia section and 600 for Heilongjiang section respectively), of which 115 jobs will be offered to indigenous people and women.**

162. Development of a business plan for the PA system based on economic valuation and exploration of possible new financing mechanisms is expected to improve the financial situation of the PA system. Communication, education and awareness programmes linked to the PA will be coordinated as a strategic, sustained and focused intervention. Improved public awareness developed through media and educational activity will support government's confidence in further investment into biodiversity conservation. By developing pride in the unique values of Daxing'anling's biodiversity, together with better appreciation

of how protection contributes to vital national ecosystem services will be engendered and this in turn will assist negotiations with central government and downstream beneficiaries to leverage greater eco-compensation payments to cover the costs of good ecosystem stewardship.

163. By strengthening inter-sectoral and inter-provincial coordination mechanisms, capacities and actions for mainstreaming biodiversity, the project will contribute to effective biodiversity conservation and global environmental benefits across the entire 189,775km² of the Daxing'anling Landscape. In addition, by strengthening the institutional, financial and individual staff capacities within each of the two FMAs, the project will bring enhanced management effectiveness to the Daxing'anling's total PA system, which covers 3.1 million ha. Most specifically, the management effectiveness of the two demonstration areas (covering 188,019 ha) will be raised to international standards, providing a model for further replication throughout the PA system which will be assured as part of the project's sustainability strategy.

COST-EFFECTIVENESS

164. The project approach aims to maximize cost-effectiveness by targeting system level barriers that will have wider multiplier effects. The project is considered cost-effective in several ways. Firstly, the project's approaches in building support from across multiple sectors (including local communities) will bring in new partners and resources for biodiversity conservation and help to avoid biodiversity-degrading investments and activities (which would demand additional resources for ecosystem rehabilitation, should that even be feasible). In particular, the project will capitalise on the opportunity presented by the Master Plan on Ecological Restoration and Economic Transition, providing new mechanisms and an implementation plan that will fully address the opportunities provided by effective biodiversity conservation and PA management. Through its work on the valuation of ecosystem services and innovative financing, the project is expected to draw in new and sustainable funding for the conservation of biodiversity across the Daxing'anling Landscape.

165. Secondly, building capacities of Daxing'anling's two Forestry Management Authorities is expected to lead to cost-effective PA management by avoiding ineffective allocation of resources, duplication of work, and by ensuring sharing of timely information and resources. Capacity building and institutionalisation of the activities, both at strategic and operational level has been identified as a high priority.

166. Thirdly, through the development of two model demonstration sites for effective PA management, the project will be able to showcase and roll-out innovative and successful approaches for improving the management of biodiversity across the Daxing'anling PA network presently covering 3.1 million hectares. Work during the PPG has shown that the selected sites are highly representative of the ecosystems and issues being faced throughout the network, and that each offers different opportunities for show-casing and replication.

167. Finally, as one of the suite of MSL projects, the project will gain in efficiency through interconnected outputs and outcomes under the Programmatic Framework, shared experiences and cross-fertilisation between projects, support from the national level programme and, where appropriate, shared experts.

COUNTRY OWNERSHIP: COUNTRY ELIGIBILITY AND COUNTRY DRIVEN-NESS

168. There are clear elements of policy embedded in the national 5-year plans (12th 5-year

plan started in 2011), national biodiversity strategy and action plan (NBSAP, 2010), provincial development plans and many national programmes. These all add up to a clear commitment on behalf of the government to ensure adequate protection and restoration of the natural environment of the country to protect biodiversity, maintain vital ecosystem functions (especially water catchment protection) and help regulate climate. The recently approved NBSAP specifically identifies 35 priority areas where ecosystem protection will be a national priority (see Figure 5, below). The Daxing'anling region is included as a priority area.

169. China's commitment to PA development and biodiversity conservation is also evident in China's early signature to the Convention on Biological Diversity (CBD) in 1992, many other conservation conventions (CITES, Ramsar etc.). China has remained steadfast in its commitments under CBD and in particular with activities under article 17 (*in situ* conservation). A very extensive national system of PAs has been established.

PROJECT CONSISTENCY WITH NATIONAL PRIORITIES/PLANS

170. The project forms a part of the China Biodiversity Partnership and Framework for Action (CBPF), which is China's umbrella GEF investment strategy for biodiversity conservation. The project is designed to advance CBPF objectives, addressing urgent, priority and catalytic outputs under the framework, in particular under Theme 3: "Investing and Managing Effectively in Reducing Biodiversity loss in Protected Areas".

171. The project is well aligned with several national and provincial policies and programmes. The *Constitution of the People's Republic of China* is the basic law which establishes that the State will protect and will improve the living and ecological environment, prevent and eliminate pollution and other hazards to the public; ensure reasonable use of nature resources, and protect rare animals and vegetation. The *11th National Five-year Plan (2006 - 2010)* identifies protection of ecosystems and environment as a key strategy and clearly stipulates the principle of "polluters pay". The *12th National Five-year Plan (2011-2015)* promotes environmental protection and sustainable growth, enhancing "ecological conservation and restoration." The plan urges the reinforcement of biodiversity conservation, strengthening monitoring in NRs – the main protected area category - and improving their management and protection. The project is also in line with *Master Plan of Ecological Conservation and Economic Transition in Daxing'anling and Xiaoxing'anling Forested Region*, and will enhance implementation one of the three Guiding Objectives of the Master Plan - to strengthen ecological protection.

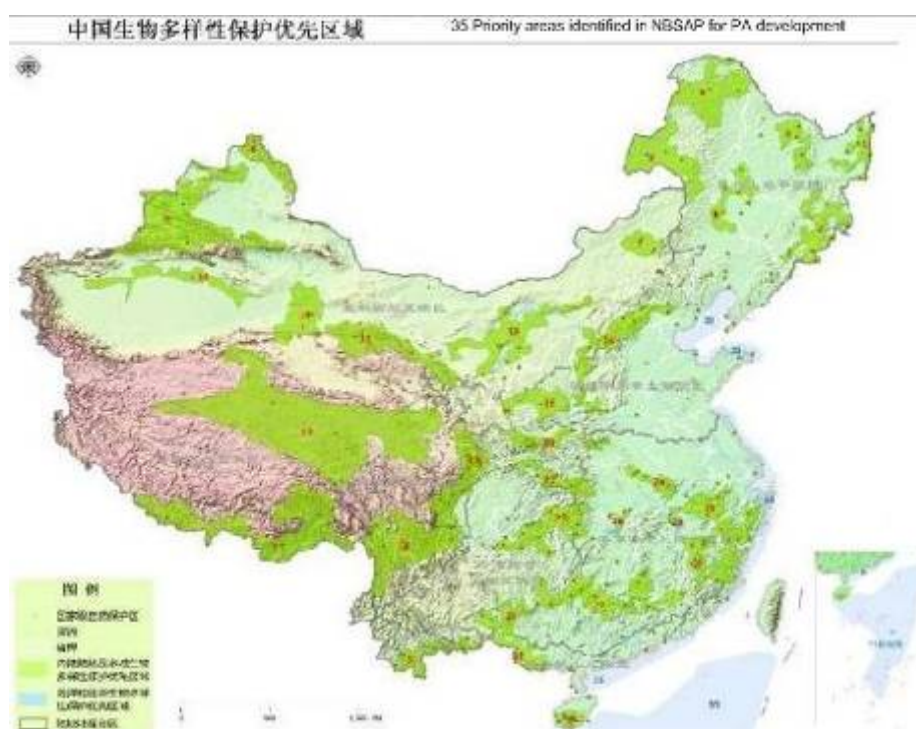
172. The project also addresses key priorities under the National Biodiversity Conservation Strategy and Action Plan (NBCSAP 2011-2030), launched in September 2010, through implementing its priority strategy of strengthening the effectiveness of the PA system in China. The NBCSAP lists the Daxing'anling region as the one of the 35 biodiversity priority protection regions in China.

173. More recently, the Government of China has promoted the concept of Ecological Function Conservation Area as an innovation in the ecological conservation. In July 2008, the National Ecological Function Zones was jointly issued by Ministry of Environment Protection and Chinese Academy of Sciences. The Daxing'anling Region has been identified as one of the most important zones for ecological function of biodiversity conservation and water retention in China.

174. The adoption by the State Council of the "Master Plan of Ecological Conservation and Economic Transition in Daxing'anling and Xiaoxing'anling Forested Regions (2010-2020)" is a clear indication of the importance attached by Government to this region. This key policy document has the objectives of increasing ecosystem functions and developing an

“ecosystem-centred” regional economy for local development – confirming the high consistency of the GEF project with the objectives of this master plan. The government is expected to spend over US\$ 900 million for implementation of this plan.

Figure 5: Map of 35 priority areas identified in NBSAP



SUSTAINABILITY AND REPLICABILITY

175. The project has been designed to be sustainable. Environmental and social sustainability are main objectives of the project, and were assessed during the PPG phase through application of UNDP’s “Environmental and Social Screening checklist”. The completed Checklist is attached as Annex 5.

- The project will provide support to environmental and sustainability mainstreaming by preparing an implementation plan for biodiversity conservation and sustainable use under the Master Plan for Ecological Restoration and Economic transition in the Daxing’anling region. It will also seek to ensure biodiversity is mainstreamed into the 13th provincial 5 Year Development Plans and into specific sectoral plans. This will lead to enhanced biodiversity and ecosystem services across the landscape. All environmental and social impacts are expected to be positive.
- Environmental sustainability within the PAs is attained through PA system design in terms of size, habitat representation and connectivity, and ensuring that broader policies also conserve biodiversity in the wider landscape. Long-term improvements in legal and institutional contexts, long-term investments to raise staff and institutional capacities, and sustained improvements in relations with local communities (through good communications, co-management and targeted awareness raising activities) that lead to increased levels of local participation and improved governance in PA management systems also promote overall project sustainability. The proposed revisions to systems planning are forward-looking and made specifically to increase resilience in the PA system in the face of climate change and other anticipated future developments and environmental change. The project will involve a review of the coverage of the existing protected areas, and is expected to result in proposals to create new protected areas. Due to the extremely low population

densities in the region, it is not expected that this would lead to any substantial resettlement of populations.

- Social sustainability is improved through efforts to support and empower local communities for greater involvement in PA governance, planning, environmental monitoring and co-management. For two demonstration protected areas, the project will promote participatory, integrated management which will put the needs and aspirations of local communities at its heart. There will be significant positive benefits through enhanced environmental quality, through new livelihood opportunities (particularly for women and minority groups), and through better quality of life. Promotion of ecotourism as a new livelihood option is hoped to bring an influx of visitors to the areas. The careful development and monitoring of detailed ecotourism plans will ensuring that negative environmental and social impacts are managed and minimized.
- Financial sustainability is improved by raising the profile of biodiversity conservation and PA management within the national and provincial governments through the comprehensive valuation of biodiversity and ecosystem services that will be undertaken. The project will also give emphasis to improving funding security for PA operations, both for development (i.e., new PA projects or construction activities) and routine management tasks and programmes. This will be enhanced through the process of business planning to help develop a more convincing official budget request document to mobilise increased operational funds. This will assess the required management costs of the PAs and identify financing mechanisms to fill the identified financing gaps. Economic valuation of ecosystem services will also be conducted to make a clear case for increased investment in PA planning and management.
- Institutional sustainability will be enhanced by establishing permanent coordination links to broader provincial development planning and coordination bodies, so as to improve synergy and cooperation with different sectors. The project specifically focuses on building staff and institutional capacity for enhanced planning and management effectiveness in the FMAs. The development of new legal instruments will also help to enhance effective protection and governance mechanisms within the PA system.

176. The project is designed to be replicable, particularly by promoting uptake of the best practices applied at the two demonstration sites to other PAs throughout the Daxing'anling Landscape, but also by transferring model approaches and lessons learned to PAs elsewhere in China.

177. Several activities for capturing best practices and cultural / traditional knowledge will be used in the project to help promote replicability, including UNDP's Learning and Knowledge Sharing electronic platform. In addition, in order to ensure sustainability, a "Sustainability and Exit Plan" will be drafted for approval at the time of the Inception workshop, so as to embed sustainability at the heart of the project from the start. The Plan will be reviewed and updated on a regular basis throughout the project period.

PART III: Management Arrangements

178. The project's implementation arrangements will emphasize and support strong collaboration and cooperation, and seek to avoid duplication of effort, among the different

PA conservation initiatives currently underway in the country. The project will be implemented over a period of five years.

179. The State Forestry Administration will serve as the *Executing Agency* (EA) with overall responsibility for project execution, including the timely and verifiable attainment of project objectives and outcomes. The SFA will nominate a high level official (the Director General of Wetland Conservation & Management Office of the SFA) to serve as the National Project Director (NPD). The NPD will chair the Project Steering Committee (PSC) and be responsible for providing government oversight and guidance to the project implementation. The NPD will not be paid from the project funds, but will represent a Government in-kind contribution to the Project. The SFA will report to a Project Steering Committee (PSC), which will be established to ensure project oversight and maintain long-term vision and direction. Specifically, the SFA will support and provide input for implementation of all project activities, coordinating overall project delivery with and through the Heilongjiang Daxing'anling FMA and the Inner Mongolia Daxing'anling FMA which shall be the government institutions responsible for the daily execution of the project "on the ground". Significantly, SFA also will execute the project's central effort to mainstream PAs and biodiversity concerns at landscape level across the two regional sections of the Daxing'anling and with provincial government sectors where appropriate, by giving greater attention to cross-sectoral approaches in development and sectoral planning. The SFA will be the project's main co-financing agency with oversight of project financing and spending and recruitment of project staff and contracting of consultants and service providers, under the advice and involvement of UNDP as required by the contracting arrangements.

180. UNDP is the GEF *Implementing Agency* (IA) for the project. The Ministry of Finance (MOF) is the national GEF Focal Point for the project. The project is to be nationally executed (NEX), in line with the Standard Basic Assistance Agreement between the UNDP and the Government of China, and with the Country Programme Action Plan (CPAP). The UNDP Country Office (UNDP-CO) will be responsible for: (i) providing financial and audit services to the project; (ii) overseeing financial expenditures against project budgets approved by PSC; (iii) appointment of independent financial auditors and evaluators; and (iv) ensuring that all activities including staff and equipment procurement and financial services are carried out in strict compliance with UNDP/GEF procedures. International procurement will be mainly handled by the UNDP upon request of the SFA. A UNDP staff member will be assigned the responsibility for the day-to-day management and control over project finances.

181. The Project Steering Committee (PSC) will operate as a joint committee with that of the MSL National Level Project. It will comprise representatives from SFA, MOF, UNDP and FAO, with two Deputy National Project Directors (DNPDs), one from each of the provincial section FMAs participating as observers. Agenda items for the National Level and Daxing'anling projects will be clearly separated. Membership in the PSC should remain as consistent as possible, but open to inclusion of new members as appropriate. The PSC will serve as the project's primary coordination and decision-making body. The PSC meetings will be chaired by the NPD or by a delegated authority, and will meet at least twice each year. The main purpose of PSC meetings will be to review project progress, approve project work plans, and approve major project deliverables. The PSC is responsible for ensuring

182. The PSC's roles will include: (i) provide comprehensive guidance for project implementation, support and supervision, coordination and solving major issues in project implementation process to ensure that the project remains on course to deliver products of the required quality to meet the outcomes defined in the project document, (ii) at least twice a

year, convene a meeting to consider the progress of the project, review the annual work plan of each subproject, and the major issues for decision-making process of project implementation; (iii) to ensure that the project has the inputs in place and in time; and (iv) to help promote project outcomes and outputs.

183. A Daxing'anling Biodiversity Conservation Committee (DBCC) will be established to champion and drive biodiversity conservation and the PA agenda as a key contribution to sustainable development for the whole of the Daxing'anling landscape. The role of the DBCC would be to drive improved strategic planning, collaboration, coordination, harmonisation and communication for biodiversity (and PAs) at landscape scale for the whole of the Daxing'anling landscape including its PAs, and to champion the role of biodiversity conservation in sustainable development. This group should have a major role in driving the "green agenda" forward using the framework of the *Master Plan of Ecological Conservation and Economic Transition*. The DBCC will meet at least annually, rotating between the two province sections, and will be chaired by the SFA (NPD). The members will comprise the chairs of the 2 PCGs (see below), the Division Chiefs of the Conservation Bureaus, Directors of the two project demonstration sites, and other members as required to mainstream biodiversity issues.

184. Additionally, a Project Coordination Group (PCG) will be established for each of the Heilongjiang and Inner Mongolia sections of the Daxing'anling Landscape to provide adaptive technical and policy advice on project implementation, and to engage and coordinate the inputs of diverse sectors both from within the FMAs and with provincial government departments. These PCGs will each be chaired by a high level representative of the provincial FMA, and will comprise focal points from key FMA and provincial government departments/sectors including: Conservation, Science, Water, Environment, Silviculture, Resource Management, Tourism, Planning, Industry, Finance, Agriculture, Livestock & Fishery, Communications, as well as the relevant demonstration site. In addition, representatives of community groups will participate.

185. The specific role of these PCG's will include: (i) overall responsibility for inter-sectoral communication, facilitation and coordination during the project implementation phase; (ii) promotion and support of enhanced linkages and convergence between the project and related programmes, with an aim of greater integration between projects and programmes and the securing of additional resources from government to maximize project outputs; and (iii) supervision of the project's progress, including the provision of strategic technical guidance for the direction of the project. Consultation at the provincial level will also help to resolve any major issues or challenges that should be encountered between different departments or sectors in the implementation process.

186. The day-to-day administration of the project will be led by a Project Management Office (PMO) within the SFA with on the ground delivery through two Project Management Units (PMU), one under the Heilongjiang FMA based in Jiagedaqi and one under the Inner Mongolia FMA based in Genhe (with the Local Technical Advisor based in Yakeshi).

187. The PMO in Beijing will be a joint office to support implementation of both the National level project and for this Daxing'anling Project, and will be financed from the GEF and national co-financing budgets of both projects. It will provide overall management of the project activities and ensure timely submission of related reports such as PIR/APR/QPR and AWP etc.. Recruitment of project staff and contracting of consultants and service providers will also be undertaken by this office with advice from and involvement of UNDP. The PMO staff will be recruited following UNDP and SFA recruitment procedures and (in addition to the NPD) will include a Project Manager, a Chief Technical Adviser, a Communication

Officer/Translator, and Administrative Assistant, and an Accounting and Disbursement Officer. The PM will, with the support of the CTA, manage the implementation of all project activities that are required to support the local PMUs, including: (i) coordinating preparation/updates of project work and budget plans, record keeping, accounting and quarterly and annual progress reporting; (ii) drafting of terms of reference, technical specifications and other documents as necessary; (iii) identification, proposal of project consultants to be approved by the PSC, coordination and supervision of consultants and suppliers; (iv) coordinating and supporting delivery of the Daxing'anling landscape level components of the project (mainly Outcome 1); (v) ensuring synergy and harmonisation of the work undertaken by the two PMUs particularly for Outcomes 2 & 3.

188. To enhance transparency and clarity, and to meet UNDP/GEF requirements, a dedicated project bank account will be created. The PMO will also liaise and work closely with all partner institutions to link the project with relevant and complementary national programmes and initiatives. The PMO is accountable to the SFA and the PSC for the quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. The PMO will produce Annual Work and Budget Plans to be approved by the PSC at the beginning of each year. These plans will provide the basis for allocating resources to planned activities. The PMO will further produce quarterly operational reports and Annual Progress Reports (APR) for submission to the PSC. These reports will summarize the progress made by the project versus the expected results, explain any significant variances, detail the necessary adjustments and be the main reporting mechanism for monitoring project activities. The PMO will also be technically supported by contracted national and international consultants and service providers. Recruitment of specialist services for the project will be done by the PMO in consultation with the UNDP and the SFA.

189. The two PMUs within the Heilongjiang and Inner Mongolia FMAs will report directly to the PMO. They will be financed by the project's GEF and co-financing budgets, and will comprise the following staff in each province section: a full time Deputy Project Manager (DPM), a half-time Local Technical Adviser (LTA)²¹ who will be a Biodiversity and Protected Areas expert consultant, a full-time Project/Communications Assistant, and a part-time Finance Officer. Translation and interpretation services will be contracted in, as necessary. The key responsibilities of the PMUs will be: (i) supporting the PMO with preparation/updates of project work and budget plans, record keeping, accounting and quarterly and annual progress reporting; (ii) coordination and supervision of locally operating consultants and suppliers; (iii) supporting delivery of the relevant province-section level components of the project (mainly Outcome 2); (iii) supporting delivery of the demonstration site component of the project (Outcome 3); (v) supporting the PMO with delivery of the landscape level components of the project (Outcome 1); (vi) coordination with their sister PMU to ensure synergy, efficiency and harmonisation of project delivery; (vii) duty travel, seminars, public outreach activities and other project events; and (viii) maintaining working contacts with project partners at the central and local levels.

²¹ The Local Technical Adviser for Inner Mongolia will be based in Yakeshi to deal primarily with activities under Outcomes 1&2

PART IV: Monitoring and Evaluation Plan and Budget

MONITORING AND REPORTING

190. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the UNDP Country Office (UNDP-CO) with support from the UNDP/GEF Regional Coordination Unit (RCU) in Bangkok. The Logical Framework Matrix in Section II - Part I provides performance and impact indicators for project implementation along with their corresponding means of verification. The METT tool, Financial Scorecard and Capacity Assessment Scorecard (see Annexes 1 & 2) will all be used as instruments to monitor progress in PA management effectiveness. The M&E plan includes: inception report, project implementation reviews, quarterly and annual review reports, a mid-term review and final evaluation. The following sections outline the principal components of the Monitoring and Evaluation Plan and indicative cost estimates related to M&E activities. The project's Monitoring and Evaluation Plan will be presented and finalized in the Project's Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

Inception Phase

191. A Project Inception Workshop (IW) will be conducted within the first 6 months of project start, with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO and representation from the UNDP RCU. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goal and objective, as well as finalize preparation of the project's first annual work plan on the basis of the logframe matrix. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise, finalizing the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project. In addition, the Inception Workshop will consider and review a Sustainability and Exit Plan for the project, which will be reviewed at regular intervals during project implementation. Additionally, the purpose and objective of the IW will be to: (i) introduce project staff with the UNDP-GEF team which will support the project during its implementation, namely the CO and responsible RCU staff; (ii) detail the roles, support services and complementary responsibilities of UNDP-CO and RCU staff *vis à vis* the project team; (iii) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Review Report (ARR), as well as mid-term review and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget re-phasing. The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff and decision-making structures will be discussed in order to clarify for all, each party's responsibilities during the project's implementation phase.

Monitoring responsibilities and events

192. A detailed schedule of project review meetings will be developed by the project management, in consultation with project implementation partners and stakeholder

representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Project Steering Committee Meetings and (ii) project-related Monitoring and Evaluation activities. Day-to-day monitoring of implementation progress will be the responsibility of the Project Manager based on the project's Annual Work Plan and its indicators. The Project Manager will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. The Project Manager will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the Inception Workshop with support from UNDP-CO and assisted by the UNDP-GEF RCU. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at this Workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plan. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

193. Measurement of impact indicators related to global biodiversity benefits will occur according to the schedules defined in the Inception Workshop. Besides the METT and Financial baseline presented in this Project Document, subsequent applications of the METT are expected at the occasion of the Mid-term Review and Final Evaluation. The measurement of certain indicators will be undertaken through subcontracts or retainers with relevant institutions. Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the Implementing Partner, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

194. Annual Monitoring will occur through the Project Steering Committee meetings. This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to PSC meetings at least two times a year. The first such meeting will be held within the first six months of the start of full implementation.

195. The Project Manager in consultations with UNDP-CO and UNDP-GEF RCU will prepare a UNDP/GEF PIR/ARR and submit it to PSC members at least two weeks prior to the PSC for review and comments. The PIR/ARR will be used as one of the basic documents for discussions in the PSC meeting. The Project Manager will present the PIR/ARR to the Project Steering Committee, highlighting policy issues and recommendations for the decision of the PSC participants. The Project Manager also informs the participants of any agreement reached by stakeholders during the PIR/ARR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. The Project Steering Committee has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievements of outputs.

196. The terminal PSC meeting is held in the last month of project operations. The Project Manager is responsible for preparing the Terminal Report and submitting it to UNDP-CO and UNDP-GEF RCU. It shall be prepared in draft at least two months in advance of the terminal PSC meeting in order to allow review, and will serve as the basis for discussions in the PSC. The terminal meeting considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle

through which lessons learnt can be captured to feed into other projects under implementation of formulation.

197. UNDP Country Offices and UNDP-GEF RCU as appropriate, will conduct yearly visits to project sites based on an agreed upon schedule to be detailed in the project's Inception Report/Annual Work Plan to assess first hand project progress. Any other member of the Project Steering Committee can also accompany this visit. A Field Visit Report will be prepared by the UNDP-CO and UNDP-GEF RCU and circulated no less than one month after the visit to the project team, all Project Steering Committee members, and UNDP-GEF.

Project Reporting

198. The Project Manager in conjunction with the project team will be responsible for the preparation and submission of the following reports that form part of the monitoring process. The first six reports are mandatory and strictly related to monitoring, while the last two have a broader function and the frequency and nature is project specific to be defined throughout implementation.

199. A Project Inception Report will be prepared at least one month before the Inception Workshop and finalized immediately following the Inception Workshop after consolidating all the stakeholders' comments. It will include a detailed First Year/ Annual Work Plan divided into quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan will include the dates of specific field visits, support missions from the UNDP-CO or the RCU or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 month time-frame. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. When finalized, the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the IR, the UNDP Country Office and UNDP-GEF RCU will review the document.

200. An Annual Review Report shall be prepared by the Project Manager and shared with the Project Steering Committee. As a self-assessment by the project management, it does not require a cumbersome preparatory process. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the Project Progress Report (PPR) covering the whole year with updated information for each element of the PPR as well as a summary of results achieved against pre-defined annual targets at the project level. As such, it can be readily used to spur dialogue with the Project Steering Committee and partners. An ARR will be prepared each year prior to the Project Steering Committee meeting to reflect progress achieved in implementing the Annual Work Plan and assess performance of the project in achieving intended outcomes/outputs and partnership work. The ARR should consist of the following sections: (i) project risks and issues; (ii) project progress against pre-defined indicators and targets and (iii) outcome performance.

201. The Project Implementation Review (PIR) is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects.

Once the project has been under implementation for a year, a Project Implementation Report must be completed by the project team and submitted to UNDP CO for comments, after finalized will send to RTA for clearance. The PIR should be prepared in a participatory manner in July and discussed with the UNDP CO and the UNDP/GEF RCU during August with the final submission to the UNDP/GEF Headquarters in the first week of September.

202. Quarterly Progress Reports (QPR) are short reports outlining main updates in project progress and will be provided quarterly to the local UNDP Country Office and the UNDP-GEF RCU by the project team. Their timely and regular completion is important, as a compound report with QPRs for all projects under implementation is submitted to the GEF Council at the occasion of their meetings.

203. A Combined Delivery Report (CDR) summarizing all project expenditures, is mandatory and should be issued quarterly. The Project Manager should send it to the Project Steering Committee for review and the Implementing Partner should certify it. The following logs should be prepared: (i) The Issues Log capture and track the status of all project issues throughout the implementation of the project. It will be the responsibility of the Project Manager to track, capture and assign issues, and to ensure that all project issues are appropriately addressed; (ii) the Risk Log is maintained throughout the project duration to capture potential risks to the project and associated measures to manage risks. It will be the responsibility of the Project Manager in collaboration and consultation with the UNDP CO to maintain and update the Risk Log, using Atlas; and (iii) the Lessons Learned Log is maintained throughout the project to capture insights and lessons based on good and bad experiences and behaviours. It is the responsibility of the Project Manager to maintain and update the Lessons Learned Log.

204. During the last three months of the project the project team will prepare the Project Terminal Report (PTR). This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met (or not achieved), structures and systems implemented, etc. and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project's activities.

205. As and when called for by UNDP CO, UNDP-GEF or the Implementing Partner, the project team will prepare specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learnt exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

206. Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

207. Project Publications will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications may be scientific or informational texts on the activities and achievements of the Project, in the form of journal articles, multimedia publications, etc. These publications can be based on Technical Reports, depending upon the relevance, scientific worth, etc. of these Reports, or may be summaries or compilations of a series of Technical Reports and other research. Project publications may also include documentary films of video clips, pages on websites or other digital publications. The project team will determine if any of the Technical Reports merit formal publication, and will also (in consultation with UNDP, the government and other relevant stakeholder groups) plan and produce these Publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget. Since the project is located in a predominantly Chinese-speaking area, those publications that are aimed at local stakeholders or communities should be also published in Chinese.

INDEPENDENT EVALUATIONS, AUDITS AND FINANCIAL REPORTING

208. SFA will require internal audit of use of government contribution funds. In addition the project will be subjected to at least two independent external evaluations as follows: An independent Mid-Term Review will be undertaken as near as possible to the mid-point of the project lifetime. The Mid-Term Review will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. The review will pay close attention to achievement of indicators identified in the project document and subsequent AWP. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the Mid-Term Review will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-Term Review will be prepared by the UNDP CO based on guidance from the UNDP-GEF RCU.

209. An independent Final Evaluation will take place three months prior to the terminal Project Steering Committee meeting, and will focus on the same issues as the Mid-Term Review. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the UNDP-GEF RCU.

LEARNING AND KNOWLEDGE SHARING

210. Capturing and sharing knowledge and lessons learned will constitute an important component of the project and an essential way to ensure sustainability and replicability of project achievements. Learning and knowledge sharing cuts across all three outcomes and relevant outputs are included under each respectively. As the local stakeholders are Chinese-speaking (with very limited capacity in English), it is essential that adequate human and financial resources are available for translation between English and Chinese for all communication activities and for the dissemination of outputs.

211. Results from the project will be disseminated within and beyond the project

intervention zone through a number of existing information sharing networks and fora. In addition, the project will participate, as relevant and appropriate, in UNDP/GEF sponsored networks, organized for senior personnel working on projects that share common characteristics. UNDP/GEF RCU has established an electronic platform for sharing lessons between the project coordinators. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identifying and analyzing lessons learned is an ongoing process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered not less frequently than once every 12 months. UNDP/GEF shall provide a format and assist the project team in categorizing, documenting and reporting on lessons learned.

COMMUNICATIONS AND VISIBILITY REQUIREMENTS

212. Full compliance is required with UNDP's Branding Guidelines and guidance on the use of the UNDP logo. These can be accessed at <http://web.undp.org/comtoolkit/reaching-the-outside-world/outside-world-core-concepts-visual.shtml>. Full compliance is also required with the GEF Branding Guidelines and guidance on the use of the GEF logo. These can be accessed at [http://www.thegef.org/gef/GEF logo](http://www.thegef.org/gef/GEF%20logo). The UNDP and GEF logos should be the same size. When both logs appear on a publication, the UNDP logo should be on the left top corner and the GEF logo on the right top corner. Further details are available from the UNDP-GEF team based in the region.

213. Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: [http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08 Branding the GEF%20final 0.pdf](http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08%20Branding%20the%20GEF%20final%200.pdf). Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

214. Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

AUDIT CLAUSE

215. The Government of China will provide the Resident Representative with certified periodic financial statements and an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted according to UNDP financial regulations, rules and audit policies by the legally recognized auditor of the Government of China, or by a commercial auditor engaged by the Government.

Table 12: M&E Activities, Responsibilities, Budget and Time Frame

Type of M&E activity	Responsible Parties	Budget (US\$)	Time frame
Inception Workshop	Project Team, UNDP CO, UNDP GEF	Cost: 10,000	Within first two months of project start up
Inception Report	Project Team UNDP CO	None	Submit draft two weeks before the IW and finalize immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	Indicative cost: 10,000 Cost to be finalized in Inception Phase and Workshop.	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	Oversight by NPD. Project Team	No separate M&E cost: to be absorbed within salary and travel costs of project staff	Annually prior to ARR/PIR and to the definition of annual work plans
ARR and PIR	Project Team UNDP-CO,UNDP-GEF	No separate M&E cost: paid from IA fees and operational budget	Annually
Quarterly progress reports	Project team		Quarterly
CDRs	Project Manager		Quarterly
Issues Log	Project Manager		Quarterly
Risks Log	UNDP CO Programme Staff		Quarterly
Lessons Learned Log			Quarterly
Mid-Term Review	NPD and Team. UNDP-CO. UNDP-GEF RCU. External Consultants (i.e. review team)		Cost:40,000
Final Evaluation	NPD and Team. UNDP-CO. UNDP-GEF RCU. External Consultants (i.e. evaluation team)	Cost: 40,000	At the end of project implementation
Terminal Report	Project team UNDP-CO	None	At least one month before the end of the project
Lessons Learned	Project team UNDP-GEF RCU (suggested formats for documenting best practices, etc)	Cost :10,000 (average 2,000 per year)	Annually
Audit	UNDP-CO Project team	Cost: 45,000 (9,000/year)	Annually
TOTAL indicative COST		US\$ 155,000	
<i>Excluding project team staff time and UNDP staff and travel expenses</i>		<i>(Some items covered under Government contribution)</i>	

PART V: Legal Context

216. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement (SBAA) between the Government of China and the United Nations Development Programme, signed by the parties on. The host country-implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

217. The UNDP Resident Representative in Beijing is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-EEG Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

- a) Revision of, or addition to, any of the annexes to the Project Document;
- b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
- c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
- d) Inclusion of additional annexes and attachments only as set out here in this Project Document.

SECTION II: STRATEGIC RESULTS FRAMEWORK (SRF) AND GEF INCREMENT

PART I: Strategic Results Framework (SRF)

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
Objective: To strengthen the management effectiveness of protected areas to respond to threats to the globally significant biodiversity in the Daxing'anling Landscape of Heilongjiang Province and Inner Mongolia Autonomous Region.	Financial sustainability score (%) for provincial systems of protected areas: - Component 1 – Legal, regulatory and institutional frameworks - Component 2 – Business planning and tools for cost-effective management - Component 3 – Tools for revenue generation - TOTAL	25 % (HJ), 23% (IM) 14% (HJ), 14% (IM) 7 % (HJ), 8% (IM) 16.4 % (HJ), 16.0% (IM)	50% (for both HJ and IM) 25% 15% 30%	Financial Sustainability Scorecard	<u>Assumptions:</u> – The government remains committed to strengthening the PA system and to an incremental growth in the funding allocation to finance the protected area network – The government continues to be committed to provide eco-compensations. <u>Risks:</u> – Mainstreaming biodiversity and PAs into sectoral development policies will be hindered by poor inter-agency coordination, lack of incentives for other sectors and poor enforcement of agreed priorities and plans
	Average METT score of sample of 11 PAs in the Daxing'anling landscape as recorded in the BD-1 Tracking Tool	44	55	METT applied at PPG, Mid-Term Review and Final Evaluation	
	Status of selected indicator species that are rare and threatened (including <i>inter alia</i> : <i>Lynx lynx</i> , <i>Ursus arctos arctos</i> , <i>Alces alces</i> , <i>Lepus timidus</i> , <i>Tetrao parvirostris</i> , <i>Bonasia bonasia</i> , <i>Grus vipio</i> , <i>Grus leucogeranus</i> , <i>Aix galericulata</i> , <i>Brachymystax lenok</i> , <i>Astragalus mongholicus</i> , <i>Chosenia arbutifolia</i>)	Baseline survey of selected indicator species in Year 1 (see methodological plan in Table 9)	Key wildlife populations maintained or increasing;	Biodiversity monitoring database	
	Number of new jobs created for local people from sustainable use of the PAs	0	900 (HJ 600, IM 300) of which 115 women and indigenous people	Analysis of PA network reports of FMAs	

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
Outcome 1 Development planning frameworks for the Daxing'anling Landscape provide the enabling environment for expanding the forest and wetland PA network and mainstreaming biodiversity as an asset for sustainable development	Outputs: 1.1 Valuation of the ecosystem services provided by the Daxing'anling Landscape provides a strong business case for conserving biodiversity and expanding and strengthening the PA network 1.2 Inter-sectoral coordination and planning mechanism strengthened to integrate biodiversity and PA systems values and objectives into development and sectoral planning process 1.3 An action plan for biodiversity conservation and sustainable use in the Daxing'anling Landscape is developed and implemented 1.4 Wetland and forest PA network in Daxing'anling Landscape <u>expanded</u> based on a systematic review of PA coverage				
	Biodiversity conservation strengthened through monetary and non-monetary valuation of ecosystem services	No comprehensive (evidence-based) valuation of the ecosystem services exists	Investment in biodiversity, PAs and a regional green development strategy is being supported through widely communicated assessment of the value of the Daxing'anling's ecosystem services	Economic valuation report and communications documents	Assumptions: <ul style="list-style-type: none"> – Adequate information and scientific evidence exists to underpin understanding of economic values of key ecosystem services – The political will to enhance the PA network and create a landscape level inter-sectoral coordination mechanism for biodiversity conservation exists
Threats reduced by mainstreaming biodiversity conservation and the PA system within the sectoral and development planning frameworks, indicated by effective intersectoral coordination and plans incorporating biodiversity conservation measures	No inter-sectoral coordination mechanism for biodiversity conservation and PAs exist at Landscape level Sectoral plans do not include adequate measures for biodiversity conservation 12 th 5 year plan includes chapter for biodiversity conservation but needs mainstreaming	Inter-sectoral Group(s) for coordinating biodiversity conservation functioning and steering the process at landscape level At least 2 sectoral plans (among forestry, tourism, agriculture, water, mining) integrate biodiversity conservation measures, including clear safeguard measures in sector practices 13 th 5 year-Plan recognises clear linkage between biodiversity and PAs and sectoral development, and includes PA and	Minutes of meetings Provincial sectoral plans 13 th 5-Year Plan	Risks: <ul style="list-style-type: none"> – Central government does not wish to expand the PA network or increase the number of NNRs because of financial implications – The processes for institutional change and development of regulations and safeguard measures to support effective management are too slow 	

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
		throughout	biodiversity-related targets		
	Expanded and more representative PA system approved	3.10 million ha (including 1.27 million ha of natural wetlands)	4.20 million ha (including 2.05 million ha of natural wetlands)	PA Systems Plan and individual gazetted documents	
	Area of PAs upgraded to National status	1.00 million ha	1.57 million ha		
	Area of PAs upgraded to Provincial status	1.32 million ha	1.44 million ha		
Outcome 2: The management effectiveness of the PA network across the Daxing'anling landscape is greatly strengthened	<p>Outputs</p> <p>2.1 PA institutional strengthening plan adopted and operationalised</p> <p>2.2 Systemic capacity strengthened for effective PA system management through regionally specific regulations and guidelines</p> <p>2.3 Improved business planning and resource allocation for PAs to directly address threats</p> <p>2.4 PA staff skills enhanced with over 300 trainees meeting occupational competency standards</p> <p>2.5 PA and biodiversity information management system significantly improved</p>				
	Capacity development scorecard (%) for the protected area system	49% (Heilongjiang) 41% (Inner Mongolia)	60% (Heilongjiang) 55% (Inner Mongolia)	Institutional capacity development scorecard	<p><u>Assumptions:</u></p> <ul style="list-style-type: none"> – Stakeholder institutions constructively engage in the identification of the most cost-effective institutional and governance arrangements for the PA network – The individual PA institutions maintain a clear mandate and unequivocal authority to fulfil local oversight and management obligations for the protected area network – Information to support the planning and management of the PAs is made available by government and institutional data holders
	Landscape level PA financing (for salaries and operational costs) increased to close by 50% the existing annual financing gap for basic expenditure scenario (planned through business plans and tracked with PA financial sustainability scorecard)	US\$ 2.980 million / year (HJ) US\$ 4.083 million / year (IM)	US\$ 12.322 million / year (HJ) US\$ 5.614million / year (IM)	Business plans Audited financial reports of PAs Financial sustainability scorecard	
	Increase in annual operational budgets for PAs	US\$ 480,000	US\$ 960,000	Departmental budgets and audits. approved investments under 12 th & 13 th 5-year plans.	
	Number of trained staff with certified competency standards	0	300 PA trainees to	PA Training Section	

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions	
			competency standards in at least 5 subject modules	reports	Risks: <ul style="list-style-type: none"> – Coordination of action between SFA and other PA management authorities proves difficult, as a result of institutional rigidities—thus undermining the conservation efforts promoted through the project. – After 2013, China will launch a new round of government institutional reforms to mainstream the people’s livelihood-related issues (such as increasing incomes, regional equality, and health) into the agenda of governments. This may reduce the focus on environmental protection (including wetlands), disportion the national investment and budget on wetland conservation in national revenues, and thus hinder the process of achieving wetland conservation objectives. 	
	Reduction in illegal incidents within the PAs – poaching, illegal harvesting, etc., despite improved activity of rangers	<p>Inner Mongolia section: average of 2908 administrative cases and 79 criminal cases (2009 & 10)</p> <p>Heilongjiang section: average of 95 administrative cases and 20 criminal cases (2010 & 11)</p>	10% decrease from the baseline for each province section despite improved rangers	Police records		
Outcome 3: Effective PA management is demonstrated in the Duobuku’er NNR and the Genheyuan NWP	Outputs 3.1 Integrated management plans prepared in a participatory way, adopted and implemented 3.2 Biodiversity and ecological health monitoring systems in place 3.3 Effective and adaptive conservation of biodiversity is demonstrated through restoration of degraded habitats and recovery measures for threatened species 3.4 Sustainable use of biodiversity demonstrated through high quality planning, enhanced co-management arrangements and better law enforcement 3.5 PA management effectiveness at the demonstration sites improved through local community participation and raised public awareness					
	Management effectiveness increased in both demonstration sites (based on METT scores)				METT applied at mid-term and at the end of the project.	Risks – Project affected by fire, drought or other “acts of God”.
	Duobuku’er NNR Genheyuan NWP	35 46	55 66			
Ecosystem Health improved (based on EHI Score)	EHI system has been introduced during the	Biodiversity monitoring system being	EHI Scorecards			

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
	Duobuku'er NNR Genheyuan NWP	PPG 0.51 0.62	implemented and EHI score improved 0.55 0.66		

PART II: Incremental Cost Analysis

Baseline

218. Without GEF support, PA management across the Daxing'anling Landscape will continue to be hindered by weak support at the provincial and local government levels and at the community level. Multi-sectoral support for PA development (and their on-going operations) will remain limited. PA management capacities will also remain at a basic level and system-wide institutional policy reforms and capacity building will not occur within the timeframe required to address urgent threats to global biodiversity values. Under the baseline, PAs will remain under-resourced, and PA-people and human-wildlife conflicts will continue – with low levels of participation and support by local people and communities for conservation action within PAs. In addition, different agencies will continue to promote their agendas and work programmes without due consideration to impacts of their actions on biodiversity in and adjacent to PAs, which may even increase future costs of amelioration of biodiversity loss and degradation.

Global Environmental Objectives

219. The increment of the project in terms of global environmental benefits is represented by: (i) increasing management effectiveness at the PA level through multiple interventions (from a METT baseline of 24-51% to a METT target of average PA score >55%), in particular through an up-scaling of co-management arrangements; (ii) improving the overall PA institutional capacity (from a baseline of 49% (Heilongjiang) and 41% (Inner Mongolia) in the Capacity Assessment Scorecard, to a final value >60% for Heilongjiang section and >55% for Inner Mongolia; and (iii) increasing the financial sustainability of the PA system (from a sustainability baseline average score of 16% for both provincial sections to >30%, as measured through UNDP's Financial Sustainability Scorecard); and (iv) expanding and significantly improving the PA system design with addition of 1,000,000 ha of forest and wetland landscapes under protection. In the long-term (by 2017 and beyond), threats to biodiversity such as wildlife poaching, the spread of alien invasive species, unsustainable forestry and harvesting of non-timber forest products and uncontrolled wildfires will be contained at levels determined appropriate.

220. The Project will generate global benefits directly through implementation of international best practice in two demonstration areas totalling 188,019 ha particularly through enhanced PA effectiveness based on co-management approaches, and to a total area of 3.1 million ha through strengthened institutional and staff capacity for PA management and replications throughout Daxing'anling PA network. By strengthening institutional coordination arrangements both within and between the provincial sections of the Daxing'anling Landscape and coordinating capacities and actions to mainstream biodiversity considerations in provincial planning and decision-making, and by strengthening provincial and local PA management authorities' institutional and individual capacities, the project will also contribute to improving the overall effective management of the entire Daxing'anling Landscape, with a total area of 189,775 km².

Alternative

221. Under the alternative (GEF project) scenario, the systemic capacity for effective PA management across the Daxing'anling Landscape will be greatly strengthened; the institutional arrangements and coordination mechanisms necessary to promote biodiversity conservation will be permanently improved. The project will provide a sound basis for monitoring biodiversity and planning an adequate PA system that aims both to protect representative samples of biota found today and also to meet the challenges posed by rapidly

changing climate. This alternative scenario will also provide the additional capacity needed to undertake the massive task of controlling illegal poaching within the vast areas of the PAs, restoring habitats and species and regulating damaging human activities such as over-harvesting of non-timber forest products and inappropriate tourism developments, road construction, mining etc., that threaten the viability of this important PA system.

222. A more collaborative approach to environmental stewardship will be put in place to facilitate co-management of PAs. Such a system is less expensive and more effective than recruiting additional government staff to monitor and control potentially sustainable human activities.

223. Novel financing mechanisms in areas with eco-tourism potential, developed by/with local communities or under private management, may also lead to additional sustainable ways in which biodiversity conservation can be financed in the Daxing'anling Landscape. With involvement of other agencies in synergistic environmental protection efforts, a sharing of the responsibility and financial burden that is currently upheld by the FMB's for the protection and sustainable management of such vast areas (in total, 16.6% of the Daxing'anling Landscape) may also be achieved.

224. Primary global benefits from improved PA management will be enhanced conservation status of globally significant biodiversity, secured water supply from the Heilongjiang (Amur) River, improved carbon sequestration in trees and peatlands and reduced heat absorption resulting from improved vegetation cover, which will both ameliorate the present climate and slow climate change. Communication, education and awareness programmes linked to the PA system will be coordinated as a strategic, sustained and focused intervention. Improved awareness among both rural and urban public will feed into media interest and enhance the government's confidence to make further investment in biodiversity conservation. Pride in the unique values of Daxing'anling's unique fauna and flora, together with better appreciation of how their protection contributes to vital national (and regional) ecosystem services will be engendered, and this in turn will assist the local management authorities in negotiations with central and provincial government and downstream beneficiary provinces to lever greater eco-compensation payments to cover the costs of good ecosystem stewardship.

System Boundary

225. In biological terms, the project is focused on the *in situ* conservation of local fauna, flora, habitats and ecological processes. Geographically, the project is limited to the Daxing'anling sections of Heilongjiang Province and the Inner Mongolia Autonomous Region that are under the special administration of the SFA, in a stratified manner. The mainstreaming activities undertaken by the project cover the entire Daxing'anling Landscape; in-depth systemic and institutional capacity building will cover the entire PA network; and implementation of global best practice approaches for biodiversity conservation, management of human activities, development of community co-management models and field research and monitoring will be undertaken at two demonstration sites. The strategic emphasis of the project is greatly improved effective management of a network of PAs that conserves the unique biodiversity of the Daxing'anling Landscape, enhanced with consideration of the need for resilience in light of rapidly changing climate, together with moderate expansion (in terms of coverage and representation) of the provincial PA system. Baseline and incremental costs have been assessed over the 5-year life span of the project.

Summary of Costs

226. The GEF financing for the project totals US\$3,544,679.²² Total co-financing for the project is US\$24,500,000. Co-financing is provided by the Government in cash (Grant) totalling \$23,500,000 and UNDP in cash (grant for parallel financing) totalling \$1,000,000²³. The total cost is broken down as follows: a) US\$10,284,661 for Component 1; b) US\$8,500,000 for Component 2; c) US\$7,867,679 for Component 3; and d) US\$1,392,339 for project management. The two tables below detail the **co-financing commitment** to the project.

<i>Name of Co-financier (source)</i>	<i>Classification</i>	<i>Type</i>	<i>Project</i>	<i>%*</i>
State Forestry Administration	Central Government	Grant	7,500,000	30.6
Heilongjiang Daxing'anling FMA	Local Government	Grant	8,000,000	32.7
Inner Mongolia Daxing'anling FMA	Local Government	Grant	8,000,000	32.7
UNDP	GEF Agency	Grant	1,000,000	4.1
Total Co-financing			24,500,000	100%

Table 13: Incremental cost matrix for the Daxing'anling GEF intervention

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
BENEFITS			
Global benefits	<p>Inadequate PA management capacity, financing for PA operational costs, mainstreaming of PA system concerns into other sectors and legal protection, results in ineffective PA management and PA system weaknesses.</p> <p>Globally significant wetland and forest ecosystems inside and outside Daxing'anling's PA system are partially protected but being degraded.</p> <p>Globally significant wetland biodiversity is declining inside and outside Daxing'anling's</p>	<p>Extension of the PA system by creation of new PAs and upgrading of others; financing plan for PA system and review and demonstration of sustainable financing options, and upgrading of legal protection for selected PAs enables improved PA management;</p> <p>Improved protection and management through development strategic capacity building programme with professional competency standards, demonstration activities, enhanced community co-management and awareness levels.</p> <p>Threats reduced through improved legal protection and enforcement, sector specific standards and inter-sectoral collaboration mechanisms, enhanced awareness of economic values and improved information management.</p> <p>Biodiversity enhanced through habitat restoration measures and targeted actions</p>	<p>Increased area of globally significant ecosystems included in Daxing'anling's PA system, and receiving enhanced legal protection.</p> <p>Threats to globally significant wetland biodiversity within and around protected areas are reduced.</p> <p>Globally significant wetland biodiversity is conserved, restored and used sustainably within Daxing'anling's PAs.</p> <p>Increased security and conservation measures for globally significant species reliant on Daxing'anling's wetland PA subsystem such as the Siberian crane</p>

²² Excluding PPG costs and agency fee

²³ UNDP is already financing two parallel projects: a) "Support Capacity Building and Innovations to Promote Green Development in China" (commonly referred to as the Green Development Project; b) "Water Pollution Control in the Duobukuer River basin" - a sub-project of the Integrated Water Replenishment Initiative in China under the Umbrella Programme on Water Governance.

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
	PA system.	for globally threatened species	
National and local benefits	<p>Wetland ecosystem services in PAs threatened by unsustainable and illegal uses and lack of inter-sectoral cooperation; ecotourism potential unrealized.</p> <p>Consumptive use values of harvesting of wetland and non-timber forest products decline and may collapse without effective management.</p>	<p>Wetland ecosystem services in PAs maintained through improved integrated resource management, increased awareness of economic values of ecosystem services, and ecotourism standards and incentives.</p> <p>Wetland and non-timber forest product harvesting is regulated, community resource use conflicts managed through co-management agreements, and sustainable resource usage improved through awareness raising, participation, alternative livelihoods and eco-compensation schemes.</p>	<p>Wetland ecosystem services provide sustainable flow of benefits to local communities and downstream economies, including water supply, flood protection, sediment, nutrient retention and climatic mitigation.</p> <p>Increased tourism revenues and benefits to local communities.</p> <p>Increased sustainability of land and resource uses provides greater security of income for local communities and unsustainable consumptive uses increasingly replaced by sustainable or non-consumptive uses such as ecotourism.</p>
COSTS			
Outcome 1: Development planning frameworks for the Daxing'anling Landscape provide the enabling environment for expanding the forest and wetland PA network and mainstreaming biodiversity as an asset for sustainable development	Baseline: \$ 4,112,078	Alternative: \$ 14,396,739	GEF: \$ 700,000 Cofinancing: \$ 9,584,661 TOTAL \$ 10,284,661
Outcome 2: The management effectiveness of the PA network across the Daxing'anling landscape is greatly strengthened	Baseline: \$ 41,120,776	Alternative: \$ 49,620,776	GEF: \$ 700,000 Cofinancing: \$ 7,800,000 TOTAL \$8,500,000

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
Outcome 3: Effective PA management is demonstrated in the Duobuku'er NNR and the Genheyuan NWP	Baseline: \$ 6,168,116	Alternative: \$ 14,035,795	GEF: \$ 1,967,679 Cofinancing \$5,900,000 TOTAL \$7,867,679
Project Management		Alternative: \$1,392,339	GEF: \$177,000 Co-financing: \$1,215,339 TOTAL: \$1,392,339
TOTAL COSTS	Baseline: \$ 51,400,970	Alternative: \$ 79,445,649	TOTAL \$28,044,679

SECTION III: Total Budget and Work plan

Short Title:	PIMS 4824 BD FSP CBPF-MSL Daxing'anling Landscape
Award ID:	00070975
Project ID:	00084703
Business Unit:	CHN10
Project Title:	CBPF-MSL Strengthening the management effectiveness of the protected areas network in the Daxing'anling landscape
PIMS #:	4824
Implementing Partner:	State Forestry Administration, People's Republic of China

GEF Outcome/ Atlas Activity	Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Acct Code	Atlas Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budget Note
OUTCOME 1: Development planning frameworks for the Daxing'anling Landscape provide the enabling environment for expanding the forest and wetland PA network and mainstreaming biodiversity as an asset for sustainable	SFA	62000	GEF	71200	International Consultants	5,000	5,000	21,000	2,000	18,000	51,000	1
				71300	Local Consultants	25,000	25,000	25,000	20,000	21,800	116,800	2
				71600	Travel	15,000	15,000	15,000	15,000	10,000	70,000	3
				72100	Contractual Services - Company	40,000	70,000	50,000	40,000	10,000	210,000	4
				75700	Training/Workshop	30,000	40,000	30,000	20,000	22,500	142,500	5
				74200	Audio-visual and printing production costs	20,000	30,000	20,000	10,000	5,000	85,000	6
				74500	Miscellaneous	5,000	5,000	5,000	5,000	4,700	24,700	7

development					Total	140,000	190,000	166,000	112,000	92,000	700,000	
OUTCOME 2: The management effectiveness of the PA network across the Daxing'anling landscape is greatly strengthened	SFA	62000	GEF	71200	International Consultants	5,000	10,000	10,000	8,000	0	33,000	8
				71300	Local Consultants	30,000	30,000	30,000	25,000	22,300	137,300	9
				71600	Travel	18,000	20,000	20,000	15,000	13,000	86,000	10
				72100	Contractual Services - Company	40,000	50,000	50,000	30,000	25,000	195,000	11
				75700	Training/Workshop	25,000	30,000	30,000	30,000	28,700	143,700	12
				74200	Audio-visual and printing production costs	10,000	20,000	20,000	15,000	15,000	80,000	13
				74500	Miscellaneous	5,000	5,000	5,000	5,000	5,000	25,000	14
					Total	133,000	165,000	165,000	128,000	109,000	700,000	
OUTCOME 3: Effective PA management is demonstrated in the Duobuku'er NNR and the Genheyuan NWP	SFA	62000	GEF	71200	International Consultants	5,000	10,000	10,000	5,000	0	30,000	15
				71300	Local Consultants	25,000	35,000	35,000	30,000	24,000	149,000	16
				71600	Travel	30,000	45,000	45,000	40,000	30,000	190,000	17
				72100	Contractual Service Company	70,000	140,000	100,000	80,000	80,000	470,000	18
				72200	Equipment	180,000	70,000	50,000	10,000	0	310,000	19
				75700	Training/Workshop	90,000	140,000	150,000	145,000	139,000	664,000	20
				74200	Audio-visual and printing production costs	20,000	30,000	30,000	30,000	20,000	130,000	21
				74500	Miscellaneous	5,000	5,000	5,000	5,000	4,679	24,679	22
					Total	425,000	475,000	425,000	345,000	297,679	1,967,679	
Project Management	SFA/ UNDP	62000	GEF	71300	Local Consultants	33,600	33,600	33,600	33,600	33,600	168,000	23

				74500	Miscellaneous	1,235	1,000	1,000	1,000	0	4,235	24
				74500	UNDP cost recovery charge	2,859	-	953	-	953	4,765	25
					Total	37,694	34,600	35,553	34,600	34,553	177,000	
TOTAL PROJECT						735,694	864,600	791,553	619,600	533,232	3,544,679	

BUDGET NOTES

1	Domestic expertise in integrated ecosystem-based approaches to wetland biodiversity conservation is still limited and international expertise to provide best practice support and quality control for all deliverables for Outputs 1.2, 1.3, 1.4 would be critical for ensuring transformational change. (International: Wetland conservation specialist (US\$3,000 X 5 mw = 15,000)); Mid-term Review and Terminal evaluations (International Project Evaluator (US\$ 3,000 X 12mw = 36000)) Total = 51,000
2	Strategic guidance to project through M&E, adaptive management advice to PMO and PSC (National: CTA (US\$1000 X 10mw = 10000)); Overall technical support to all project activities, lead delivery of Output 1.4 (LTA1 (US\$750 X 40mw = 30000) & LTA2 (US\$750 X 40mw = 30000)); Facilitation and technical support to outputs 1.2 & 1.3 (Environment Mainstreaming Specialist (US\$900 X 40 mw = 36000)); Mid-Term Review and Terminal evaluations (National Evaluation Consultant(US\$900 X 12 mw = 10800)) Total = 116,800
3	Pro rata travel for international and national consultants and project staff, including international and domestic flight costs, terminal expenses and accommodation.
4	Service contract to deliver the economic valuation of biodiversity and PAs for the Daxing'anling landscape, PA System and demonstration sites, under the framework of the National Project (Output 1.1, est. \$ 90,000). Seed funds for targeted applied research contracts to fill the gaps in the evidence base (eg carbon sequestration, permafrost, Gaps in PAs (\$ 70,000)); Interpretation and translation services (\$ 30,000). Other small contracts to support detailed delivery of other outputs (\$20,000)
5	Key planning, consultation and training meetings for, inter alia, : production of the inception report; meetings of the DBCC and PCGs; task forces, mainstreaming of the PA system and objectives in the 5-year plans and budget, support for DXAL biodiversity & PA action plan; development of sector specific plans, standards and measures; development of province specific regulations and procedures;
6	Editing, design and printing of reports and awareness materials (economic valuation, including policy briefs, policy maker's toolkits etc, Action Plan for biodiversity and sustainable use (and user-friendly summary), PA expansion plan and other landscape level publications, leaflets)
7	Contingency to cover exchange rate fluctuations, audit costs and miscellaneous costs associated with organizing specialized meetings eg M&E
8	Domestic expertise in integrated ecosystem-based approaches to wetland biodiversity conservation and PA financing is still limited and international expertise to provide best practice support and quality control for all deliverables for Outputs 2.1-2.5 would be critical for ensuring transformational change. (International Wetland Conservation specialist (US\$3,000 X 5 mw = 15,000)); International best practice support to Output 2.3 (International PA Financing specialist (US\$3000 X 6mw = 18,000)); Total = 33,000
9	Strategic guidance to project through M&E, adaptive management advice to PMO and PSC (National: CTA (US\$1000 X 5mw = 5000)); Overall technical support to all project activities, lead technical support for delivery of Outputs 2.2, 2.4, 2.5 (LTA1 (US\$750 X 60mw = 45000) & LTA2 (US\$750 X 60mw = 45000)); Facilitation, technical support and delivery of Output 2.1 (PA Legislation specialist (US\$900 X 12mw = 10800)); Facilitation, technical support and delivery of Output 2.3 (PA Financing specialist (US\$900 X 35mw = 31500)); Total = \$ 137,300
10	Pro rata travel for international and national consultants and project staff, including international and domestic flight costs, terminal expenses and accommodation.
11	Service contract/s to support: Development of staff capacity building programme (Output 2.4, \$80,000); development of PA information management system (Output 2.5 \$60,000). Interpretation and translation services (\$ 30,000). Other small contracts (\$25,000) to support Institutional strengthening planning (Output 2.1), development of guidelines and regulations (Output 2.2), PA business planning (Output 2.3)
12	Key technical and consultation sessions for development of PA Institutional Strengthening plan, regulations and guidelines, business planning and information management (50,000); Minimum 5 training courses for system level modules (\$75,000). Other meetings 18,700) . Government travel costs including DSA to be covered by co-financing.

13	Editing, design and printing of reports and learning materials developed under component, particularly, system level training brochure / materials, modules, guidelines, business plans, leaflets etc
14	Contingency to cover exchange rate fluctuations, audit costs and miscellaneous costs associated with organizing specialized meetings eg M&E
15	Domestic expertise in integrated ecosystem-based approaches to wetland biodiversity conservation as well as ecotourism is still limited and international expertise to provide best practice support and quality control for all deliverables for Outputs 3.1-3.5 would be critical for ensuring transformational change. (International Wetland Conservation Specialist (US\$3,000 X 5 mw =15,000)); International best practice support to ecotourism plans Output 3.4 (International ecotourism specialist (US\$3,000 X 5mw = 15,000))
16	Strategic guidance to project through M&E, adaptive management advice to PMO and PSC (National: CTA (US\$1000 X 5mw = 5000); Overall technical support to all project activities, particularly Outputs 3.1, 3.3, 3.4 (LTA1 (US\$750 X 30mw = 22,500) & LTA2 (US\$750 X30mw = 22,500)); Lead facilitation and technical support for delivery of Output 3.2 (Biodiversity Monitoring specialist (US\$900 X 60mw = 54,000)); Lead facilitation and technical support for delivery of ecotourism plans Output 3.4 (Ecotourism specialist (US\$900 X 30 mw = 27000)); Lead facilitation and technical support for delivery of community participation and co-management Outputs 3.4 and 3.5 (Community Co-management specialist (US\$900 X 20 mw = 18000)); Total = 149,000
17	Pro rata travel for international and national consultants and project staff, including international and domestic flight costs, terminal expenses and accommodation.
18	Service contracts on competitive basis to cover several aspects of Outcome 3 including: development of the biodiversity monitoring system and baseline (\$ 70,000), design and delivery of site level training modules (150,000), monitoring/training, model interpretation and communications design (\$100,000). Interpretation and translation services (\$40,000). Other contracts for specialist technical support to wetland surveys, restoration, sustainable use, support to co-management activities and community engagement (\$110,000)
19	Procurement of equipment that are necessary for field operations in the demonstration areas, 2 project 4X4 vehicles (\$50K each) , motorbikes for rangers, biodiversity and wetland monitoring equipment. The 2 4X4 vehicles are essential for project activities as the FMBs do not have any spare capacity. Distances are large and conditions extreme, therefore new vehicles are needed and will be more cost effective. Maintenance will be covered by government. Government will provide vehicles for PA staff activities through co-financing.
20	Training courses (\$600,000, 30 @ \$20,000) for eg ecological monitoring system; wetland management planning, restoration, ecotourism and interpretation, community engagement etc. Key technical, planning and consultation meetings for all outputs including with PA staff and managers, community leaders, local government, community gatherings etc. for extension of co-management and its benefits to community and the PA; Community Forums etc. (\$ 64,000)
21	Editing, designing and printing of training modules, reports and awareness materials, handbooks for community managers, monitoring, traditional knowledge.
22	Contingency for exchange rate fluctuations, audit costs and small costs associated with organizing specialized meetings eg M&E
23	Project management and coordination (Project Manager (US\$ 3,200 X 15months = 48,000) ; DPM1 (US\$ 3,000 X 20months = 60,000; DPM2 (US\$3,000 X 20 Months = 60,000)) . Total = \$168,000). The GEF Budget contributions to the PMO staff will be supplemented with GEF funds from the National project and co-financing to make them full time. The GEF contribution to PMU salaries will be supplemented through co-financing to make them full time.
24	Contingency to cover exchange rate fluctuations, audit costs and miscellaneous costs associated with organizing specialized meetings eg M&E
25	Estimated UNDP Direct Project Service/Cost recovery charges for international consultant recruitment services requested by the SFA to UNDP for executing services as indicated in the Agreement in Annex 8 of the Project Document. In accordance with GEF Council requirements, the costs of these services will be part of the executing entity's Project Management Cost allocation identified in the project budget. DPS costs would be charged at the end of each year based on the UNDP Universal Pricelist (UPL) or the actual corresponding service cost. The amounts here are estimations based on the services indicated, however as part of annual project operational planning the DPS to be requested during the calendar year would be defined and the amount included in the yearly project management budgets and would be charged based on actual services provided at the end of that year. Estimated amount: US\$ 4,765 (US\$953×5 international recruitments) – See more details in Annex 8: Letter of Agreement for UNDP Direct Project Services LOA.

Summary of funds

Summary of Funds						
Source	Year 1	Year 2	Year 3	Year 4	Year 5	Total
GEF (excl. PPG & Agency fee)	735,694	864,600	791,553	619,600	533,232	3,544,679
Government (grant)	2,000,000	4,000,000	5,000,000	7,000,000	5,500,000	23,500,000
UNDP (grant)	200,000	200,000	200,000	200,000	200,000	1,000,000
Total	2,935,694	5,064,600	5,991,553	7,819,600	6,233,232	28,044,679

SECTION IV: ADDITIONAL INFORMATION

PART I: Co-financing and Support Letters

国家林业局司局函

4 December, 2012

To: Yannick Glemarec
GEF Executive Coordinator
United Nations Development Programme
One United Nations Plaza
New York, NY 10017 USA

Dear Mr. Glemarec

**Subject: Confirmation of co-financing for the Daxing'anling project under CBPF- MSL:
Wetland PA System Strengthening for Biodiversity Conservation**

We are pleased to submit the CEO Endorsement Request and Project Document for the project *Strengthening the management effectiveness of the protected area network in the Daxing'anling Landscape* under the CBPF-MSL: Wetland PA System Strengthening for Biodiversity Conservation Programme. To ensure the successful implementation of this project, the Department of Development Planning and Finance Management of State Forestry Administration (SFA) as the executing agency for the project, confirms US\$ 23.5 million co-financing to this project, including US\$ 7.5 million provided by SFA, US\$ 8 million by the Heilongjiang and US\$ 8 million by the Inner Mongolia Daxing'anling Forestry Administrations respectively. Attached please find two co-financing confirmation letters from the Heilongjiang and Inner Mongolia Daxing'anling Forestry Administrations.

We would like to take this opportunity to express our sincere appreciation to UNDP for your great support to this project.

Department of Development Planning and Finance Management
State Forestry Administration



29th November, 2012

To: Department of Development Planning and Finance Management
State Forestry Administration

**Subject: Confirmation of co-financing for the Daxing'anling project under CBPF- MSL:
Wetland PA System Strengthening for Biodiversity Conservation**

To ensure the successful implementation of the project *Strengthening the management effectiveness of the protected area network in the Daxing'anling Landscape* under the CBPF-MSL: Wetland PA System Strengthening for Biodiversity Conservation Programme, we confirms US\$ 8 million co-financing to this project.

Inner Mongolia Daxing'anling Forestry Administrations



16 November, 2012

To: Department of Development Planning and Finance Management
State Forestry Administration

**Subject: Confirmation of co-financing for the Daxing'anling project under CBPF- MSL:
Wetland PA System Strengthening for Biodiversity Conservation**

To ensure the successful implementation of the project *Strengthening the management effectiveness of the protected area network in the Daxing'anling Landscape* under the CBPF-MSL: Wetland PA System Strengthening for Biodiversity Conservation Programme, we confirms US\$ 8 million co-financing to this project.



United Nations Development Programme

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7 January 2013

Dear Ms. Dinu,

Subject: Co-financing Commitment Letter of CBPF- MSL: Strengthening the Management Effectiveness of the Protected Area Network in the Daxing'anling Landscape

This is to confirm the support the UNDP China Country Office to the project *CBPF-MSL: Strengthening the Management Effectiveness of the Protected Area Network in the Daxing'anling Landscape* focused on improving management effectiveness of the protected area system in the whole Daxing'anling Landscape straddling the Heilongjiang Province and the Inner Mongolia Autonomous Region. This project will unite the strengths of UNDP and the State Forestry Administration of China through the Heilongjiang Daxing'anling Forestry Management Authority and the Inner Mongolia Daxing'anling Forestry Management Authority. We confirm that the UNDP CO will contribute USD 1,000,000 in grant co-financing to the project.

We are earnestly looking forward to the commencement of the project.

Yours sincerely

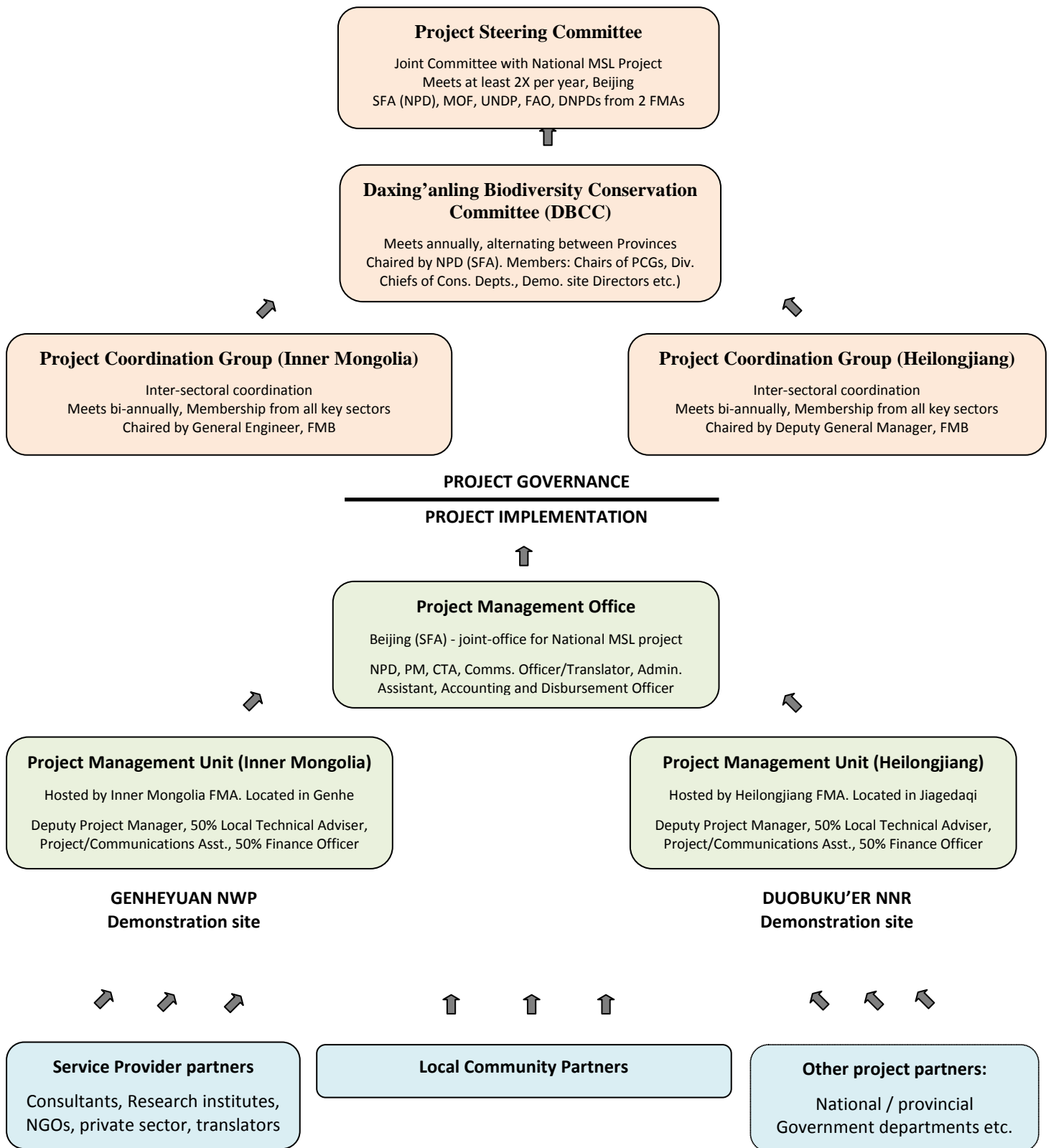
A handwritten signature in black ink, appearing to read 'Christophe Bahuet', is written over the typed name and title.

Christophe Bahuet
Country Director

Adriana Dinu
Deputy GEF Executive Coordinator
United Nations Development Programme
One United Nations Plaza
New York, NY 10017
U.S.A.

2 Liangmahe Nanlu, Beijing 100600, China
Tel: 86-10-85320800 Fax: 86-10-85320900 Website: www.undp.org.cn
中国北京亮马河南路二号 邮编: 100600

PROJECT ORGANIGRAMME



PART II: Summary of the METT Capacity Development and Financial Scorecards Results

Section One: Project General Information

Project Name:	Strengthening the management effectiveness of the protected area network in the Daxing'anling Landscape
Project Type (MSP or FSP):	FSP
Project ID (GEF):	4868
Project ID (IA):	4824
Implementing Agency:	UNDP
Country(ies):	P.R. China
Project duration:	5 years
Lead Project Executing Agency (ies):	State Forestry Administration of China (SFA)

Name of reviewers completing tracking tool and completion dates

	Name	Title	Agency
CEO Endorsement February 2013	Lucy Yu	Programme Consultant	
Project Mid-term			
Final Evaluation/project completion			

Project coverage in hectares

Targets and Timeframe	Foreseen at project start (ha)	Achievement at Mid-term Review of Project (ha)	Achievement at Final Evaluation of Project (ha)
A. Total Extent in hectares of protected areas targeted by the project by WWF Terrestrial MHTs			
Temperate broadleaf and mixed forests (temperate, humid)	23,468		
Temperate coniferous forests (temperate, humid to semi-humid)	1,728,077		
Temperate grasslands, savannas, and shrublands (temperate, semi-arid)	81,963		
<i>Sub-total</i>	<i>1,833,508</i>		
B. Total Extent in hectares of protected areas targeted by the project by WWF Freshwater MHTs			
B.1 By freshwater MHTs			
Temperate floodplain rivers and wetlands	441,039		
Temperate upland rivers	825,753		

Sub-total	1,266,792		
Grand Total (A+B)	3,100,300		

During PPG, METT scorecards were completed by small teams for 11 of the most important PAs in the Daxing'anling Landscape. Results are summarised below:

METT SCORES FOR DAXING'ANLING LANDSCAPE PAs		
	<u>Heilongjiang section</u>	
1	Duobuku'er	35%
2	Nanwenghe	50%
3	Shuanghe	48%
4	Huzhong	48%
5	Lingfeng	31%
6	Chuonahe	30%
	<u>Average for Heilongjiang section</u>	40%
	<u>Inner Mongolia section</u>	
7	Genheyuan	46%
8	Bilahe	48%
9	Hanma	53%
10	A'lu	44%
11	E'erguna	53%
	<u>Average for Inner Mongolia section</u>	49%
	<u>Overall average for Daxing'anling sample</u>	44%

A financial scorecard was used to assess the baseline financial sustainability for the entire NR system. The result of the assessment was only 16.4% for Heilongjiang section and 16.0% for Inner Mongolia section.

The standard capacity development scorecard was used to assess FMA overall capacity for the PA system management. By separating the questions into three classes it was possible to separately assess capacity at systemic, institutional and individual levels. The overall results were 49% (Heilongjiang) and 41% (Inner Mongolia) of the optimal score.

The full METT and Financial scorecards are attached as a separate Excel file in the form of the GEF BD Tracking Tool (See Annex 1). Capacity scorecard is attached as Annex 2, and the EHI Scorecard is attached as Annex 3.

PART III: Profile of the Duobuku'er NNR and Genheyuan NWP demonstration sites

227. The vast Daxing'anling landscape stretches over two provinces - Inner Mongolia Autonomous Region and Heilongjiang Province - unlike the other 5 provincial projects under the MSL programme, each of which covers just one province. Furthermore, the GEF budget available for the site level work in Daxing'anling is only \$1.97M (compared with the other MSL provincial projects: Anhui US\$ 1.52M, Daxing'anling US\$ 1.73M, Hubei US\$ 1.5M, Xinjiang US\$ 1.2M and Jiangxi US\$ 2.8 M) each of which just includes a single demonstration site. It was therefore recognized by SFA, UNDP and local governments during the PIF formulation stage, that only one pilot site should be selected from each of the two province sections to ensure the highest demonstration value and good information exchange, within the available funding which would not be sufficient to support the inclusion of additional pilot sites.

228. The selected demonstration sites both offer great potential and resources for demonstrating, promoting replicating and magnifying the projects activities to the other sites throughout the PA network. Both sites include the range of characteristic ecosystems, habitat types and conservation / management issues that need to be addressed at other sites throughout the network, with Genheyuan being a predominantly "wetland" ecosystem, and Duobukuer encompassing significantly more forests. The two sites also differ usefully in certain characteristics and issues, which will allow them to be used differently in the overall process of building management effectiveness across the Daxing'anling. This relates for example to their specific PA designation (NNR and NWP) and age, the types of habitats requiring restoration, the species mix that must be addressed in conservation activities, the issues regarding agriculture at Duobuku'er NNR, the very significant new interests and initiatives in ecotourism and nature interpretation at Genheyuan, and also the distance and mix of local communities in and around each site. Therefore, focusing the demonstration activities based on the characteristics and opportunities of these two sites, one in each province section, will provide a highly cost-effective input from the GEF project.

DUOBUKU'ER NATIONAL NATURE RESERVE, HEILONGJIANG

Geographical coordinates: 50°19'~50°43'N, 124°18'~125°04'E. Area: 128,959 ha

No. staff: 96 METT Score: 35% EHI Assessment: 0.51

Threats: The threats to biodiversity identified from the METT scorecards were: forest fires; fragmentation and damage to natural habitats from agriculture and roads; illegal hunting and gathering non-timber forest products; pollution from upstream urban areas; erosion; vandalism.

229. Duobuku'er NNR was approved as a provincial (ministry)-level NR in 2002 by SFA and authorized as a PNR by Heilongjiang provincial government in 2006. Finally, in January 2012, it was granted full NNR status by the General Office of the State Council. It is located on (and encompasses 96km of) the Duobuku'er River, one of the headstreams of the Nenjiang River in the south of the Heilongjiang section of the Daxing'anling region. It is one of the most representative forest and wetland nature reserves of the cold temperate zone in China. The reserve is managed by the Duobuku'er NNR Bureau which has its headquarters within the Jiagedaqi FMB. The annual budget for the NNR in 2011 was US \$568,200 for salaries, and US \$4,200 for operational costs, excluding special projects.

230. Biodiversity: The forest and wetland habitats of Duobuku'er NNR were greatly fragmented and degraded as a result of unsustainable forestry practices and the encroachment of agriculture. However, with the cessation of logging and relatively natural and recovering conditions and diverse habitats, Duobuku'er NNR is of great significance for biodiversity. Five IUCN Red List species have

been recorded, as well as 3 mammals and 6 bird species from the Class I national protected species list, and 6 mammals and 33 birds from Class II. The diverse vegetation types include forest, shrub, meadow, swamp, and wet grasslands. These support 416 species of vascular plants including 8 nationally protected species, plus 43 macro fungi species. The 6 families and 326 genera of vertebrates found in the Nature Reserve accounts for 56.6% of all vertebrates in Heilongjiang Province. These include 53 mammal species, 231 bird species, 6 reptile species, 6 amphibians, and 30 fish species. The area provides important habitats for migratory waterbirds, including the critically endangered Siberian crane which is a rare spring and autumn migrant. The insect species are also very rich, with 10 orders, 57 families, and 146 genera of common insects. Baseline information on the distribution and abundance of biodiversity is very poor, but characteristic species include moose, snow hare, brown bear, hazel grouse and black-billed capercaillie. Higher trophic level species / carnivores still exist but at low densities.

231. The wetlands which cover 29,134 ha. (22.6%) of the reserve are particularly important in terms of the biodiversity they support and the ecosystem services they provide. Being the water source for the most important headstream of the Nenjiang River, the extensive wetlands play vital roles in flood and runoff regulation, flood storage and drought prevention, pollution control, climate adjustment, water and soil conservation, and so forth. Since the Nenjiang River is the source of Songhua River, the stability and balance of water resources here is of great significance to the ecological and economic development and environmental security in Heilongjiang province, northeast China and Inner Mongolia.

232. Management: The management and infrastructure development of the reserve are based on the *Comprehensive Research Report of Heilongjiang Duobukuer Nature Reserve* and the 2010 *Heilongjiang Duobukuer Nature Reserve Master Plan*. Due to lack of budgets, no integrated management plan for biodiversity conservation and sustainable use has yet been prepared. Aside from the NR Management Office located at Jiagedaqi, there are 6 management stations located in the reserve. There are 96 staff, with 28 being management staff on permanent contract and 68 rangers hired on temporary contracts. Important investments have been made into the infrastructure and facilities of the reserve, particularly through the RMB 12.98 million “Nenjiang River Source Wetland Conservation Project” in 2008. All 6 management stations have access to electricity and telecommunication, and are all equipped with basic living facilities. While these new facilities have brought great improvements, the recurrent field operations budget of only US\$4000 per year remains totally inadequate, the R&D Center and the Publicity and Education Center have not yet been built and the NR still lacks many supporting facilities and equipment, particularly vehicles for patrolling and specialized equipment for biodiversity monitoring.

233. Zonation: For management purposes, the NR is divided into three contiguous zones, namely experimental area (48,294 ha), buffer area (38,879 ha), and core area (41,786 ha) (see Map). National regulations stipulate the following: 1) the **core zone** with no use, habitation or interference permitted, apart from limited observational scientific research; 2) the **buffer zone**, where some scientific collection, measurements, management and research are permitted; and 3) the **experimental zone**, where scientific investigation, public education, tourism and raising of rare and endangered wild species are permitted. Note that buffer zones in Chinese NRs are a strict protection category very different from external PA buffers, as used in common international parlance. Boundary markers and 10 billboards have been erected to clarify the different function zones and communicate information.

Figure 6: Map of Duobuku'er National Nature Reserve, Heilongjiang (showing management zones)



234. The experimental area includes 10,283 hectares of agricultural land which remains from the period following heavy forest exploitation when such activities were encouraged to help the forest staff to improve their low incomes. As a result of the new environmental policies and regulations, some of the existing agricultural lands are gradually being converted back to their original wetland or woodland status. However in recent years, agriculture is becoming more profitable due to the warming climate so that some farmers are converting additional lands illegally. Despite tough punishments this is difficult to control without expensive satellite monitoring. A further problem is that the fertility of the farmland is decreasing requiring more use of fertilizers, herbicides and pesticides which threaten the environment (particularly wetlands).

235. Socio-economics: Eco-tourism and multiple-operation (diversification) are the two major direct economic income sources for the Nature Reserve. The growing revenues from these sources could be used to address further development and facilities of the Nature Reserve, with the future objective of financial sustainability of the Nature Reserve. Non-timber forest products are harvested in the experimental zone and used in the green food industry, as well as for natural medicines. Tourism has grown rapidly from about 10,000 visitors in 2007 to over 70,000 in 2011. A rafting centre has been established for recreation and ecotourism, and accommodation is available (also in the nearby Goli Wetland Park).

236. Management issues: Aside from the agricultural issues described above, the other management problems are as follows: a) Risk of forest fires: although rare, these can be devastating, and 70% are caused by humans. b) Habitat degradation as a result of the 20 or so quarries that have been created during the construction of roads and bridges. c) Pests and diseases (particularly of trees) – this requires sound monitoring and forecasting, but the NR does not have relevant facilities for these purposes. d) Loss of permafrost - due to climate change, wetland damage and forest felling, the permafrost is retreating and becoming more seasonal with large impacts on habitats. e) Water Pollution – the PA is located downstream from Songlin town (50,000 people) and receives the wastewater via the Duobuku'er River; there are also some inputs from agricultural activities. An

integrated management plan is urgently needed to address these issues.

237. The major constraints relating to effective management concern finance, personnel and community participation. Financial constraints greatly limit some of the reserve's management functions and there is a high dependence on other bureaus, for example for administration and fire control. Many facilities are old, and equipment is also severely deficient - particularly for patrolling, fire prevention and environmental monitoring. The NR is acutely short of personnel with management and technical expertise. The existing staff lack relevant knowledge on ecology, environment conservation, and wildlife and appointment of better qualified staff as well as training of the existing staff is urgently needed. Finally, there are no mechanisms or encouragement for the communities and businesses surrounding the nature reserve to participate in its management. These constraints mean that many opportunities to conserve and sustainably use the rich resources of the NR are being missed. There is an urgent need to enhance the management effectiveness of the NR.

GENHEYUAN NATIONAL WETLAND PARK (PILOT), INNER MONGOLIA

Geographical coordinates: 50°48'- 51°13' N and 121°34'- 122°41' East Area: 59,060 ha.

No. staff: 80

METT Score: 46%

EHI Assessment: 0.62

Threats: The threats to biodiversity identified from the METT scorecards were: climate change, tourism infrastructure, roads, legal and illegal harvest of natural products, forest fires and wastes/pollution.

238. The Genhe FMB initiated the plan to establish the Genhe NWP in early 2011, and SFA gave formal approval to the pilot construction activities in December 2011. Genhe FMB is responsible for an area of 90,000ha of which 65.6% is now occupied by the Genheyuan NWP. The NWP is located in the central west slope of the Daxing'anling landscape, and within the jurisdiction of Genhe city in Hulun Buir League. It encompasses a long, narrow belt alongside the Genhe River just upstream from Genhe City, and occupies a total area of 59,060 hectares. Although the site is internally divided by roads and bridges, its integrity and naturalness are high. However, the site is slightly degraded due to historic timber harvest, soil removal/quarrying, poaching, and fire. No dams or weirs are constructed within the site and the water quality reaches the Grade-I category as defined by Water Quality Classification Standard in China.

239. Genhe River is one of the sources of the transnational (with Russia) Argun River. The wetland ecosystem of the NWP retains its natural status with little human interference or pollution, and provides an excellent example of the cold-temperate zone wetlands of the Daxing'anling forest region. The area comprises a largely intact and very important mosaic of riverine and swamp wetlands, plus a small area of lacustrine wetlands. It represents a climax wetland ecosystem due to high altitude and harsh climatic conditions, and it plays a unique role in ensuring the ecosystem services for the Genhe and Argun River Basins. Although the site was harvested for timber for more than 60 years, all resource exploitation was conducted by strictly complying with applicable forest management standards. Therefore, the original habitats still remain. It retains the natural species communities, which demonstrate the original conditions of wetland ecosystems in the Daxing'anling landscape, with high research and conservation values.

240. Biodiversity: Cold-temperate coniferous forest is the dominant land cover in the Park covering of 83.6%. The major tree species are Xing'an dahurian (Siberian) larch, white birch, and *Pinus sylvestris*. According to statistics from the 2nd National Survey of Wetlands conducted in 2010, there are 20,291 ha. of wetlands in the Genheyuan NWP (34.4% of the total area, including the forested wetlands). These are primarily comprised of swamp wetland (90.5%), riverine wetland (9.4%), plus

a small portion of lacustrine wetland (0.1%). The wetland vegetation is classified into forest wetland vegetation, shrub wetland vegetation, and herbaceous wetland vegetation. The major wetland plants are Siberian larch, *Betula fruticosa*, *Betula middendorffii*, willow family, *Chamaedaphne calyculata*, *Carex dispalatha*, grass family, common duckweed, *Sphagnum*, etc..

241. There are a total of 553 species of plants in the area, including 3 species are lichens, 126 species of bryophytes, 11 species of pteridophyte, 1 species of gymnosperm and 410 species of angiosperm. Those species included in the state protection key species list and are categorized as rare and endangered species include *Chosenia arbutifolia*, *Empetrum*, *Boschniakia rossica*, *Chyripedium macranthum*, *Myriophyllum ussuriense*, *Sagittaria natans*, etc.

242. There are 11 large mammal species, 74 bird species, 30 fish species, 6 amphibian species, and 2 reptile species. More than 60 species are included in the state protection key species list including Class I species such as *Tetrao parvirostris parvirostris*, *Mergus squamatus*, *Ciconia boyciana*, *G. leucogeranus*, *Martes zibllina princeps*, *Moschus moschiferus sibiricus*, *Gulo gulo gulo*, etc., and Class II species such as *C. columbianus jankowskii*, *Milvus korschus*, *Accipiter gentilis schvedowi*, *F. tinnunculus tinnunculus*, *Bonasa bonasia sibiricus*, *Ursus arctos lasiotus*, *Lynx lynx isabellina*, *Cervus elaphus xanthopygus*, *Lepus timidus transbaikalicus*, etc.. However, there is little information about the distribution, abundance and ecological requirements of the key species. However, ad-hoc patrolling suggests declines in some common species such as Moose, mountain hare and Hazel grouse. Although high trophic carnivorous animals still exist in the site, their population size and distributions have greatly shrunk.

243. Management: A comprehensive Master Plan has been prepared for the NWP covering the period 2011-18. However, no integrated management plan for biodiversity conservation and sustainable use has yet been prepared. Six conservation bureaus have been established to cover the NWP, as well as a Protection and Management Division equipped with 80 staff, located in the Sajiqi Forest Conservation Bureau. The development of a visitor centre is planned in the coming years. Despite this progress, the field operations budget is inadequate, and the NWP still lacks many supporting facilities and equipment, particularly vehicles for patrolling and specialized equipment for biodiversity monitoring.

Figure 7: Map of Genheyuan National Wetland Park, Inner Mongolia (showing management zones)



244. Zonation: The Wetland Park is divided into 5 management zones (Figure 7), namely, management and service zone, publicity and education zone, restoration zone, rational utilization zone, and wetland conservation zone (see map). The detailed boundary has been publicized, and boundary marks were constructed in some places.

245. Although the Park has only recently been established, good progress is being made in conserving the existing forests and wetlands, and work has begun to restore degraded habitats. A significant effort is also being made to develop a model ecotourism facility to promote economic development, as well as other environmental opportunities to improve income and living standards of local people following the decline of the timber harvests. Further detail on these is provided in the next section.

246. Management issues: Major threats facing the Genhe Wetland Park are as follows: a) forest fires – these can have significant impact on the forest swamp and shrub swamp habitats and other environmental impacts. b) Illegal and arbitrary hunting and collecting of wild animals and plants - the rich wildlife resources in the Park are seen as targets for illegal profit chasers. c) habitat degradation – a (historical threat has been the artificial afforestation of wetland habitats and also encroachment for agriculture. d) climate change - the large area of permafrost in the Wetland Park is critical for sustaining the cold-temperate forest and wetland ecosystem. However, due to global warming and other human activities, the permafrost is retreating and becoming more seasonal with big impacts on wetland functions.

247. The main constraints of the Park in terms of protection and management relate to its very recent establishment. Firstly, the staff lack wetland protection and management capacity as they originated from forestry bureaus. The second constraint is insufficient funds, since all the operational costs of the Park have to be raised by the forestry bureau, constraining the full achievement of the Park's management goals. Shortage of basic facilities and equipment is the third constraint and facilities and equipment for professional conservation, scientific research and monitoring are badly needed. Finally, the awareness of the public needs improving, since the concept of wetland is little known by the public although the environment is very important to their lives.

PART IV: Target Community Profiles

The project will select and work closely with communities related to the two project demonstration sites (Duobuku'er NNR in Heilongjiang Province and Genheyuan NWP in Inner Mongolia) to introduce, enhance and/or scale-up co-management conservation initiatives in the region, including biodiversity protection and monitoring, environmental awareness, adoption of more sustainable natural resource use for example through ecotourism or the harvest of non-timber forest products or associated added-value processing. Through the development of eco-compensation schemes and other mechanisms, adequate long-term financing mechanisms will be developed and put in place for community-based environmental conservation efforts as well to support or contribute to community development funds (managed under appropriate governance structures) to bring socio-economic benefit to local communities.

The project will also learn from community conservation efforts elsewhere in the Daxing'anling region and in China and internationally, in order to broaden the scope of the project's learning experience as much as possible. Community forums and partnerships (co-management field projects) will help inform and guide future planning and assist in the scaling-up of co-management approaches throughout the Daxing'anling PA system, which will help strengthen PA management effectiveness.

For communities to participate in the project's co-management work (Component 3), the following criteria shall be considered: the critical nature of the for biodiversity conservation; community interest and willingness to be involved; community capacity (including community cohesiveness, basic awareness or experience with the concept of co-management, and the existence of local champions); and the potential demonstration value of a site to address unique sets of conservation issues (e.g., ecotourism, harvesting of forest products, human-wildlife conflict, etc.).

The demonstration site communities who will be engaged to partner with the project to achieve biodiversity conservation goals through co-management are described below:

Communities related to Duobuku'er NNR

The Duobuku'er NNR occupies an area of 128,959ha in the southern part of the Heilongjiang section of the Daxing'anling, at the heart of the land managed by the Jiagedaqi FMB, which itself has 2,108 staff (2011). There are currently 5 forestry farms in the vicinity of the NR with 400 staff. There are no local community residents permanently living within the NNR, although some of the 96 staff (rangers etc), live within the NNR and also the neighbouring Goli Forest Farm. In the summer months, farming families return to tend their agricultural lands within the experimental area of the reserve. The nearest town is Jiagedaqi with some 160,000 residents, where the Jiagedaqi FMB is located which oversees the management of the NNR.

Socioeconomic Context

The experimental area includes 10,283 hectares of agricultural land which are farmed in the short 100 day growing season. Due to new environmental policies and regulations, agricultural lands are gradually being converted back to natural habitats. However agriculture is becoming more profitable due to the warming climate so that some farmers are converting additional lands illegally. The local communities use the NNR for harvesting non-timber forest products (NTFPs) in the experimental zone of the reserve; outside migrants also enter the reserve for NTFPs collection and illegal hunting across the whole site.

Jiagedaqi Forest Management Bureau has been very active in promoting the green food industry, as

well as natural medicines and eco-tourism. In 2011, the GDP of the bureau reached 153.8 million yuan, of which 500,000 yuan was contributed by eco-tourism, 13.2 million yuan by green food processing industry, 1.4 million yuan by Northern medicine development. Tourism has grown rapidly from about 10,000 visitors in 2007 to over 70,000 in 2011. A rafting centre has been established for recreation and ecotourism, and accommodation is available (also in the nearby Goli Wetland Park).

Threats to Biodiversity associated with community activities (from METT)

Illegal encroachment and pollution from agriculture, forest and peatland fires (caused by cigarettes or accidents); illegal or non-sustainable hunting and gathering non-timber forest products; vandalism, wastes/rubbish

Existing conservation initiatives involving communities

The Regional Natural Resources Museum in Jagedaqi provides a high quality resource for public education. Reserve staff make public awareness and education programmes periodically and through the media in the interpretation and training of biodiversity, policies, laws and regulations. Some exhibitions about wildlife and plant conservation have been made, as well as community based exhibition boards, slogans and educational posters. Celebrations of Bird Week and Wetland Day are conducted each year.

Co-management agreements have been signed with farmers to reduce the impacts from agriculture, and to gain their assistance with fire-fighting

Communities related to Genheyuan NWP

The Genheyuan NWP is the source of the Genhe river and occupies an area of 59,060ha immediately upstream of Genhe City (population about 50,000) in the southern part of the Daxing'anling in Inner Mongolia. It is administered by the Genhe FMB.

Socioeconomic Context

There are no resident communities inside the Park, with the exception of rangers and other staff. Similarly, there is no forestry or agriculture or tourism. However facilities are currently being developed for high quality ecotourism, including low impact accommodation, walkways, rafting centre etc.. The harvest of non-timber forest products, particularly berries, mushrooms and medicinal plants is an important economic activity for the local communities. Outside the Park there has been major development in the industries for processing these non-timber forest products, as well as the establishment of farms for reindeer, fox, mink and cultivated mushrooms. Similarly, outside the Park there have been important developments in timber processing and added-value industries.

The local Aolugoya (Ewenki) minority tribe numbers 247 individuals. They used to live a hunting-and-migration life in the unique environment of Daxing'anling region, raising reindeers, and following their traditional beliefs in Shamanism that embraces animalism and honours nature. They used to roam the area with their reindeer, but are now involved in farming deer and tourism, and are accommodated in a permanent settlement near Genhe city. Development of the Wetland Park offers significant opportunities to engage the Aolugoya in raising awareness of the environment in environmental education about traditional ways of life, and in ecotourism.

Threats to Biodiversity associated with community activities (from METT)

Unsustainable and/or illegal harvest of natural products, forest and peatland fires (cause by cigarettes or accidents) and rubbish/wastes

Existing Conservation Initiatives with community

The social, economic, and agricultural relations with the local communities of the Park are fairly coordinated. The land is owned by the State, and there are no disputes on land ownership. Moreover, the extensive public participation and involvement of the communities during establishment period laid a solid foundation for the Park's sustainable development in terms of strengthened communication and understanding with the local communities. Local community awareness of nature conservation is comparatively high, which contributes greatly to the protection and management of the Park. For instance, the local residents report illegal hunting and support law enforcement activities. Park staff make public awareness and education programs periodically to public and local communities and through the media in the interpretation and training of biodiversity, policies, laws and regulations. A high quality Visitor Centre is planned to be opened in the next 2 years. Local communities, for example the Youth Committees, retirees and park staff have been very active in tree planting, habitat restoration and rubbish collection. The future developments of ecotourism will provide many opportunities for local employment, particularly for women and for minority groups, such as the Aolugoya Ewenki (traditional culture).

PART V: Terms of References for key project staff

PROJECT MANAGER

Background

The Project Manager (PM), will be nationally recruited on an open competitive process and based in the PMO, where he/she will have joint responsibility also for managing the MSL National project. He/She will be responsible for the overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. The PM will report to the UNDP-CO, in close consultation with the host institution for all of the project's substantive and administrative issues. From the strategic point of view of the project, the PM will report on a periodic basis to the Project Steering Committee (PSC). Generally, the PM will be responsible for meeting government obligations under the project, under the national execution modality (NEX). He/She will perform a liaison role with the Government, UNDP and other UN Agencies, NGOs and project partners, and maintain close collaboration with any donor agencies providing co-financing.

Duties and Responsibilities

- Supervise and coordinate the production of project outputs, as per the project document;
- Mobilize all project inputs in accordance with UNDP procedures for nationally executed projects;
- Supervise and coordinate the work of all project staff, consultants and sub-contractors; in particular, ensure effective provincial level delivery of project activities through effective supervision of the 2 provincial-level Deputy Project Managers.
- Coordinate the recruitment and selection of project personnel;
- Prepare and revise project work and financial plans, as required by UNDP;
- Liaise with UNDP, relevant government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities;
- Facilitate administrative backstopping to subcontractors and training activities supported by the Project;
- Oversee and ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, SFA and other oversight agencies;
- Disseminate project reports and respond to queries from concerned stakeholders;

- Report progress of project to the steering committees, and ensure the fulfilment of steering committees directives.
- Oversee the exchange and sharing of experiences and lessons learned with relevant community based integrated conservation and development projects nationally and internationally;
- Ensures the timely and effective implementation of all components of the project;
- Assist community groups, townships, NGOs, staff, students and others with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities;
- Coordinate and assists scientific institutions with the initiation and implementation of all field studies and monitoring components of the project
- Ensure good communication on project results and lessons, liaising with media and stakeholders.
- Carry regular, announced and unannounced inspections of all sites and the activities of any project site management units.

Qualifications

- A university degree (preferably a MSc or PhD degree) in Environmental or Natural Sciences;
- At least 10 years of experience in natural resource management (preferably in the context of PA planning and management);
- At least 5 years of project/programme management experience;
- Working experience with the project's national stakeholder institutions and agencies is desirable;
- Ability to effectively coordinate a large, multi-stakeholder project;
- Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project;
- Strong drafting, reporting and presentation skills;
- Good computer skills;
- Excellent written communication skills; and
- A good working knowledge of English (written and spoken) is a requirement.

ADMINISTRATIVE ASSISTANT

Background

The Administrative Assistant will be locally recruited on an open competitive process and based in the PMO, where he/she will also have joint responsibility for administration of the MSL National project. He/She will be responsible for the overall administration of the project. The Administrative Assistant will report to the Project Manager. Generally, the Administrative Assistant will be responsible for supporting the Project Manager in meeting government obligations under the project, under the national execution modality (NEX).

Duties and Responsibilities

- Collect, register and maintain all information on project activities;
- Contribute to the preparation and implementation of progress reports;
- Monitor project activities, budgets and financial expenditures;
- Advise all project counterparts on applicable administrative procedures and ensure their proper implementation;
- Maintain project correspondence and communication;
- Support the preparations of project work-plans and operational and financial planning processes;
- Assist in procurement and recruitment processes;

- Assist in the preparation of payments requests for operational expenses, salaries, insurance, etc. against project budgets and work plans;
- Follow-up on timely disbursements by UNDP CO;
- Receive, screen and distribute correspondence and attach necessary background information;
- Prepare routine correspondence and memoranda for Project Managers signature;
- Assist in logistical organization of meetings, training and workshops;
- Prepare agendas and arrange field visits, appointments and meetings both internal and external related to the project activities and write minutes from the meetings;
- Maintain project filing system;
- Maintain records over project equipment inventory; and
- Perform other duties as required.

Qualifications

- A post-school qualification (college diploma, or equivalent);
- At least 5 years of administrative and/or financial management experience;
- Demonstrable ability to administer project budgets, and track financial expenditure;
- Demonstrable ability to maintain effective communications with different stakeholders, and arrange stakeholder meetings and/or workshops;
- Excellent computer skills, in particular mastery of all applications of the MS Office package;
- Excellent written communication skills; and
- A good working knowledge of English.

CHIEF TECHNICAL ADVISER

Background

The Chief Technical Adviser (CTA) will be recruited nationally through an open competitive process. He/She is responsible for ensuring strategic and technical quality and consistency of the Project, by providing overall technical backstopping. He/She will render technical advice and inputs to the NPD, Project Manager, SFA and other government counterparts, and will provide technical coordination to the two Local Technical Advisers to ensure a consistent approach at Daxing'anling Landscape level. The CTA will ensure provision of required technical inputs, review and preparation of Terms of Reference, and provision of technical support to assure the outputs of National Project Director, consultants and other sub-contractors meet expected standards. He/She will report directly to the NPD.

Duties and Responsibilities

- Provide technical advice to the NPD, PM, SFA (and where necessary the two FMAs) in particular to ensure technical soundness of all project activities and outputs, maximum technical cross fertilisation with other projects in the MSL Programme, as well as technical consistency between project work undertaken by the two FMAs.
- Working closely with the two LTAs, take lead responsibility for ensuring technical consistency and quality and timeliness of delivery between the two FMAs to ensure a coherent landscape-scale approach for the project for the PA Systems Plan under Output 1.4 and for the PA Institutional Strengthening Plan under Output 2.1.
- In view of the critical importance of capacity building of the FMA staff, maintain strategic oversight for the technical quality and timeliness of delivery of Output 2.4 - the design and establishment of a Biodiversity Conservation and PA Management Training Programme for each FMA.

- Bring national and international technical experiences to project planning and implementation to ensure that full use is made of lessons learned, and that best practices are used to achieve the project goal of enhancing the effectiveness of the PA system to protect biodiversity;
- Provide technical support to the PM in: preparing Terms of Reference for consultants and sub-contractors, and assistance in the selection process; reviewing the work of all consultants and sub-contractors, to ensure timely and quality delivery of expected outputs; ensuring effective synergy among the various sub-contracted activities, and integration of project outputs;
- Provide technical assistance, capacity building support and advice to the SFA and Heilongjiang and Inner Mongolia Forestry Management Authorities in key strategic and policy issues related to biodiversity, protected areas, institutional strengthening processes, and appropriate monitoring and evaluation systems and knowledge management systems;
- Provide quality assurance for the development of annual work plans, review progress, and advise NPD and PM to ensure annual, mid-term and end-of-project targets will be met;
- Assist the NPD and PM with technical input in preparation of the inception report, Project Implementation Review / Annual Project Report, and quarterly financial reports for submission to UNDP, the GEF, other donors and the Government, as required;
- Provide technical input to consultants in the conduct of a mid-term review, and in undertaking revisions in the implementation programme and strategy, based on review results;
- Assist the NPD and PM in liaison work with project partners, donor organizations, NGOs and other groups to ensure effective technical coordination of project activities, and coordination with local, national and international complementary projects and programmes;
- Support the PM in documenting lessons learned through implementation of the project and make recommendations to the Steering Committee for more effective implementation and coordination of project activities;
- Produce policy briefing papers and technical reports to support decision-making processes, advocacy and knowledge management; and
- Perform other tasks as may be requested by the NPD and PM.

Qualifications

- University education (PhD degree) with expertise in PA and wetlands conservation planning and management, co-management, and regional expertise;
- At least 15 years of professional experience in conservation planning and management and proven ability to work with multiple stakeholders;
- Demonstrable experience in the implementation of multilateral donor funded or government funded international development projects;
- Demonstrable experience in project organization and ability to serve as effective communicator and negotiator with excellent oral presentation skills;
- Good knowledge of international best practice in PA planning and management, and conservation in general, is desirable;
- Excellent written communication skills; and
- Fluency in English and Chinese is required.

DEPUTY PROJECT MANAGER(S)

Background

Two Deputy Project Managers (DPM), will be locally recruited on an open competitive process and will be located in the PMUs in Heilongjiang Province and Inner Mongolia respectively. In each case, he/she will be responsible to the PM for the overall management of the project at provincial level, including the mobilization

of all project inputs, supervision over project staff, consultants and sub-contractors. The DPM will report to the PM, in close consultation with the host institution for all of the project's substantive and administrative issues. Generally, the DPM will be responsible for meeting the Daxing'anling provincial section level obligations under the project, under the national execution modality (NEX). He/She will perform a liaison role with the relevant FMA and its bureaus, local government and project partners..

Duties and Responsibilities

- Supervise and coordinate the production of provincial level project outputs, as per the project document;
- Mobilize all provincial level project inputs in accordance with UNDP procedures for nationally executed projects;
- Supervise and coordinate the work of all project staff, consultants and sub-contractors at provincial level;
- Coordinate the recruitment and selection of local project personnel;
- Contribute at provincial level to the preparation and revision of project work and financial plans;
- Liaise with FMA, relevant local government agencies, and all project partners for effective coordination of all project activities;
- Coordinate closely with counterpart DPM in "sister" provincial section of Daxing'anling region to ensure maximum synergy and efficiency of project activities.
- Facilitate administrative backstopping to subcontractors and training activities supported by the Project at provincial level;
- Support PM to ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, SFA and other oversight agencies;
- Disseminate project reports and respond to queries from concerned stakeholders at provincial level;
- Report progress of project relevant committees, and ensure the fulfilment of steering committee directives at provincial level
- Oversee the exchange and sharing of experiences and lessons learned with relevant community based integrated conservation and development projects in the province section;
- Ensure the timely and effective implementation of all components of the project at province section level;
- Assist community groups, townships, NGOs, staff, students and others at provincial level with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities;
- Coordinate and assist scientific institutions with the initiation and implementation of all field studies and monitoring components of the project at provincial level
- Ensure good communication on project results and lessons, liaising with media and stakeholders at provincial level.

Qualifications

- A university degree (preferably a MSc) in Environmental or Natural Sciences;
- At least 10 years of experience in natural resource management (preferably in the context of PA planning and management);
- At least 5 years of project/programme management experience;
- Working experience with the project's provincial level stakeholder institutions and agencies is desirable;
- Ability to effectively coordinate a large, multi-stakeholder project;

- Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project;
- Strong drafting, reporting and presentation skills;
- Good computer skills;
- Excellent written communication skills
- A working knowledge of English (written and spoken) is highly desirable.

LOCAL TECHNICAL ADVISERS

Background

The Local Technical Advisers (LTA) (one half-time for each of Heilongjiang and Inner Mongolia sections) will be technical experts in the field of biodiversity conservation and protected areas management with at least 10 years of professional (including field) experience, and recruited through an open selection process. Working closely with the Deputy Project Manager on a half-time basis during the lifespan of the project s/he will be responsible for overall technical leadership, coordination and support of the project activities and timely and quality delivery of project outputs at provincial section level. Duties include:

- Being responsible for technical quality and timely delivery of outputs and ensuring the project progress in the province section;
- Coordinate closely with the CTA and other LTA to ensure maximum synergy and effectiveness in project delivery;
- Provide technical inputs to the Inception Report, Project Implementation Review, technical reports, quarterly financial reports for submission to UNDP, the GEF, other donors and Government Departments, as required by the PMO;
- Provide lead technical support to all project implementation activities in the province section that are not supported by a specialist consultant, including facilitating and supporting workshops, task forces and training programmes, and developing technical documents. In particular:
 - Output 1.4 – Wetland PA network expanded
 - Output 2.2 – PA institutional strengthening plan
 - Output 2.2 – Strengthened PA system management
 - Output 2.4 – PA staff skills enhanced
 - Output 2.5 – PA and biodiversity information management system
 - Output 3.1 – Integrated wetland management plans
 - Output 3.3 – Effective conservation of biodiversity
 - Output 3.4 – Sustainable use of biodiversity
- Be responsible for preparing ToR and developing methodology in the execution of various technical studies to be carried out through the project in the province section, as well as assuring quality of technical reports compiled by consultants and link with project outputs and outcomes;
- Support technical consultancy procurement process, reviewing technical proposals and applications;
- Ensure the linkage between different consultancies in the province section, or different periods of the consultancy services continuing over several years;
- Ensure the development and implementation of project monitoring and evaluation plans, and annual update of the progress towards project impact indicators for the province section;
- Bring in national and international experiences to ensure that the project will operate making full use of good practices and lessons learned in improving PA management effectiveness;

- Provide capacity building support to the FMA, the PMU and the demonstration site in the province section;
- Document lessons from project implementation and make recommendations to the PMO and FMA for more effective implementation and coordination of project activities. provision of technical input to preparation of project work and budget plans, quarterly and annual progress reporting;
- Provision of technical support to seminars, public outreach activities and other project events;
- Coordination with project partners at the provincial and local levels, linking the project with complementary international and national programmes and initiatives.

Qualifications

- University education (PhD degree) with expertise in PA and wetlands conservation planning and management, co-management, and regional expertise;
- At least 10 years of professional experience in conservation planning and management and proven ability to work with multiple stakeholders;
- Demonstrable experience in project organization and ability to serve as effective communicator and negotiator with excellent oral presentation skills;
- Good knowledge of national and international best practice in PA planning and management, and conservation in general, is desirable;
- Excellent written communication skills; and
- Fluency in English and Chinese is required.

PART VI: Overview of Inputs from Technical Assistance Consultants Financed by GEF²⁴

Position/Service Titles	\$/person week	Estimated person weeks	Tasks to be performed
For Project Management			
National / Local consultants			
Project Manager	800 (=3200 /month)	60 ²⁵ (=15 months)	<p>The Project Manager is responsible for overall coordination of the project activities and timely and quality delivery of project outputs. S/he will:</p> <ul style="list-style-type: none"> ▪ Supervise and coordinate the production of project outputs, as per the project document; ▪ Mobilize all project inputs in accordance with UNDP procedures for nationally executed projects; ▪ Supervise and coordinate the work of all project staff, consultants and sub-contractors, in particularly the two Deputy PMs ▪ Coordinate the recruitment and selection of project personnel; ▪ Prepare and revise project work and financial plans, as required by UNDP;

²⁴ Some of the activities could be combined for contracting purposes. The exact TOR and timing of consultancies will be reviewed on an annual basis in preparation of annual work plans. TOR for different consultancy inputs are given above under the relevant outputs in section Part One – Section II Strategy.

²⁵ The PM will be a full time appointment, shared with the MSL National Project. The “estimated person weeks” shows the contribution from the GEF Daxing’anling budget which will be supplemented by national co-financing.

Position/Service Titles	\$/person week	Estimated person weeks	Tasks to be performed
			<ul style="list-style-type: none"> ▪ Liaise with UNDP, relevant government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities; ▪ Facilitate administrative backstopping to subcontractors and training activities supported by the Project; ▪ Oversee and ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, SFA and other oversight agencies; ▪ Disseminate project reports and respond to queries from concerned stakeholders; ▪ Report progress of project to the steering committees, and ensure the fulfilment of steering committees directives. ▪ Oversee the exchange and sharing of experiences and lessons learned with relevant community based integrated conservation and development projects nationally and internationally; ▪ Ensures the timely and effective implementation of all components of the project; ▪ Assist community groups, townships, NGOs, staff, students and others with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities; ▪ Coordinate and assists scientific institutions with the initiation and implementation of all field studies and monitoring components of the project ▪ Ensure good communication on project results and lessons, liaising with media and stakeholders. ▪ Carry regular, announced and unannounced inspections of all sites and the activities of any project site management units.
Deputy Project Manager 1 (Heilongjiang Province section)	750 =(3000 /month)	80 ²⁶ =(20 months)	<p>The Deputy Project Manager is responsible for overall coordination of the project activities and timely and quality delivery of project outputs <u>at province-section level</u>. S/he will:</p> <ul style="list-style-type: none"> ▪ Supervise and coordinate the production of provincial level project outputs, as per the project document; ▪ Mobilize all provincial level project inputs in accordance with UNDP procedures for nationally executed projects; ▪ Supervise and coordinate the work of all project staff, consultants and sub-contractors at provincial level; ▪ Coordinate the recruitment and selection of local project personnel; ▪ Contribute at provincial level to the preparation and revision of project work and financial plans; ▪ Liaise with FMA, relevant local government agencies, and all project partners for effective coordination of all project activities; ▪ Coordinate closely with counterpart DPM in “sister” provincial section of Daxing’anling region to ensure maximum synergy and efficiency of project activities. ▪ Facilitate administrative backstopping to subcontractors and training activities supported by the Project at provincial level; ▪ Support PM to ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, SFA and other oversight agencies; ▪ Disseminate project reports and respond to queries from concerned stakeholders at provincial level; ▪ Report progress of project relevant committees, and ensure the fulfilment of steering committee directives at provincial level ▪ Oversee the exchange and sharing of experiences and lessons learned with relevant community based integrated conservation and development projects in the province

²⁶ The GEF contribution will be made up to “full-time” over 5 years from co-financing

Position/Service Titles	\$/person week	Estimated person weeks	Tasks to be performed
			<p>section;</p> <ul style="list-style-type: none"> ▪ Ensure the timely and effective implementation of all components of the project at province section level; ▪ Assist community groups, townships, NGOs, staff, students and others at provincial level with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities; ▪ Coordinate and assist scientific institutions with the initiation and implementation of all field studies and monitoring components of the project at provincial level ▪ Ensure good communication on project results and lessons, liaising with media and stakeholders at provincial level.
Deputy Project Manager 2 (Inner Mongolia)	750 =(3000 /month)	80 ²⁷ =(20 months)	<p>The Deputy Project Manager is responsible for overall coordination of the project activities and timely and quality delivery of project outputs <u>at province-section level</u>. S/he will:</p> <ul style="list-style-type: none"> ▪ Supervise and coordinate the production of provincial level project outputs, as per the project document; ▪ Mobilize all provincial level project inputs in accordance with UNDP procedures for nationally executed projects; ▪ Supervise and coordinate the work of all project staff, consultants and sub-contractors at provincial level; ▪ Coordinate the recruitment and selection of local project personnel; ▪ Contribute at provincial level to the preparation and revision of project work and financial plans; ▪ Liaise with FMA, relevant local government agencies, and all project partners for effective coordination of all project activities; ▪ Coordinate closely with counterpart DPM in “sister” provincial section of Daxing’anling region to ensure maximum synergy and efficiency of project activities. ▪ Facilitate administrative backstopping to subcontractors and training activities supported by the Project at provincial level; ▪ Support PM to ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, SFA and other oversight agencies; ▪ Disseminate project reports and respond to queries from concerned stakeholders at provincial level; ▪ Report progress of project relevant committees, and ensure the fulfilment of steering committee directives at provincial level ▪ Oversee the exchange and sharing of experiences and lessons learned with relevant community based integrated conservation and development projects in the province section; ▪ Ensure the timely and effective implementation of all components of the project at province section level; ▪ Assist community groups, townships, NGOs, staff, students and others at provincial level with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities; ▪ Coordinate and assist scientific institutions with the initiation and implementation of all field studies and monitoring components of the project at provincial level ▪ Ensure good communication on project results and lessons, liaising with media and stakeholders at provincial level.
For Technical Assistance (Component 1)			

²⁷ The GEF contribution will be made up to “full-time” over 5 years from co-financing

Position/Service Titles	\$/ person week	Estimated person weeks	Tasks to be performed
<i>National Consultants</i>			
Chief Technical Adviser	1000	10	<p>Provide overall technical backstopping to the project activities under Outcome 1 to ensure quality and timeliness of all deliverables. Render technical advice and inputs to the NPD, Project Manager, SFA and other government counterparts. Provide technical coordination to the two Local Technical Advisers to ensure a consistent approach at Daxing'anling Landscape level. Provide required technical inputs to PM for review and preparation of Terms of Reference for contractors. In particular:</p> <p><u>Output 1.4 – Expansion and upgrading of the PA network</u></p> <ul style="list-style-type: none"> ▪ Working closely with the two LTAs, take lead responsibility for ensuring technical consistency and quality and timeliness of delivery between the two FMAs to ensure a coherent landscape-scale approach for the PA Systems Plan.
Local Technical Adviser 1 (Heilongjiang)	750	40	<p>Provide overall technical lead to ensure technical quality and timely delivery of all outputs under Outcome 1 in Heilongjiang section in close coordination with other consultants and contractors; Coordinate closely with the CTA and LTA for Inner Mongolia to ensure maximum synergy and effectiveness in project delivery;</p> <p>Provide lead technical support to all project implementation activities in Heilongjiang section that are not supported by a specialist consultant or contractor, including facilitating and supporting workshops, task forces and training programmes, and developing technical documents. In particular:</p> <p><u>Output 1.4 – Expansion and upgrading of the PA network</u></p> <p>Take lead responsibility for ensuring technical quality and timeliness of delivery of the PA Systems Plan for Heilongjiang section</p>
Local Technical Adviser 2 (Inner Mongolia)	750	40	<p>Provide overall technical lead to ensure technical quality and timely delivery of all outputs under Outcome 1 in Inner Mongolia section in close coordination with other consultants and contractors; Coordinate closely with the CTA and LTA for Heilongjiang to ensure maximum synergy and effectiveness in project delivery;</p> <p>Provide lead technical support to all project implementation activities in Inner Mongolia section that are not supported by a specialist consultant or contractor, including facilitating and supporting workshops, task forces and training programmes, and developing technical documents. In particular:</p> <p><u>Output 1.4 – Expansion and upgrading of the PA network</u></p> <p>Take lead responsibility for ensuring technical quality and timeliness of delivery of the PA Systems Plan for Heilongjiang section</p>
Environment mainstreaming specialist	900	40	<p>Working closely with the PM and DPMs, CTA, LTAs and other consultants, the specialist will provide part-time but continuous technical support for several outputs concerning mainstreaming of biodiversity and PAs under Outcome 1 for the duration of the project period. Tasks will entail:</p> <p><u>Output 1.1 - Valuation of ecosystem services:</u></p> <ul style="list-style-type: none"> ▪ Review draft report on Valuation of Ecosystem Services and advise on recommendations and follow-up for mainstreaming and communicating the findings. <p><u>Output 1.2 - Inter-sectoral coordination and planning mechanisms:</u></p> <ul style="list-style-type: none"> ▪ advise the SFA and FMAs on key strategic and policy issues related to integrating biodiversity and PA conservation into spatial and sectoral planning, particularly integration of the principles of the ecosystem approach; ▪ support the SFA and FMAs in development of participatory inter-sectoral coordination and planning mechanisms and integration of biodiversity and the PA systems and objectives into development and sectoral planning process; ▪ provide technical support to the coordination bodies to be established/designated (initially DBCC and PCGs), and secure their sustainability; ▪ support mainstreaming of biodiversity into the PA system in the provincial 5 Year Development Programmes; <p><u>Output 1.3 - Action Plan for Biodiversity Conservation and Sustainable Use</u></p> <ul style="list-style-type: none"> ▪ Facilitate and lead the participatory development and drafting of the <i>Action Plan for Biodiversity Conservation and Sustainable Use in the Daxing'anling</i>

Position/Service Titles	\$/ person week	Estimated person weeks	Tasks to be performed
			<p><i>Landscape</i> to be adopted as an implementation plan for biodiversity under the <i>Master Plan of Ecological Conservation and Economic Transition in Daxing'anling and Xiaoxing'anling Forested Region</i>.</p> <ul style="list-style-type: none"> Provide support for targeted communication activities fostering inter-sectoral collaboration. Using participatory approaches, review and analyse sectoral planning process and operational procedures related to transport and infrastructure, agriculture and livestock husbandry, industry, mining, tourism, forestry and harvest of Non-timber forest products; identify key issues and develop practical sector-specific standards and measures to safeguard biodiversity within and outside PAs.
Evaluation expert for mid-term review	900	6	<p>The standard UNDP/GEF project evaluation TOR will be used. This will include:</p> <p>Support the mid-term review; Work with the international evaluation consultant in order to assess the project progress, achievement of results and impacts; support development of draft evaluation report and discuss it with the project team, government and UNDP; As necessary participate in discussions to extract lessons for UNDP and GEF.</p>
Evaluation expert for Terminal evaluation	900	6	<p>The standard UNDP/GEF project evaluation TOR will be used. This will include:</p> <p>Support the Terminal evaluation; Work with the international evaluation consultant in order to assess the project progress, achievement of results and impacts; support development of draft evaluation report and discuss it with the project team, government and UNDP; As necessary participate in discussions to extract lessons for UNDP and GEF.</p>
International consultants			
International Wetland conservation specialist	3000	5	<p>Provide high level technical advice to SFA, FMAs, provincial governments and project staff on key strategic and policy issues concerning wetland conservation and application of the ecosystem approach under Outcome 1; bring international best practice approaches on wetland conservation to the project; provide specific technical input on wetland conservation to all aspects of project implementation. In particular:</p> <p><u>Output 1.1 - Valuation of ecosystem services:</u></p> <ul style="list-style-type: none"> Review draft report on Valuation of Ecosystem Services and advise on recommendations and follow-up for mainstreaming and communicating the findings. <p><u>Output 1.2 - Inter-sectoral coordination and planning mechanisms:</u></p> <ul style="list-style-type: none"> Advise the SFA and FMAs on key strategic and policy issues related to integrating wetland biodiversity and PA conservation into spatial and sectoral planning, particularly integration of the principles of the ecosystem approach; Provide technical advice on wetland conservation to the work of the DBCC and PCGs <p><u>Output 1.3 – Action Plan for Biodiversity Conservation and Sustainable Use</u></p> <ul style="list-style-type: none"> Provide technical support to development and drafting of the <i>Action Plan for Biodiversity Conservation and Sustainable Use in the Daxing'anling Landscape</i>, and review drafts <p><u>Output 1.4 – Expansion and upgrading of the PA network</u></p> <ul style="list-style-type: none"> Advise and review the plan for expansion and upgrading of the PA network
Evaluation expert for mid-term review	3000	6	<p>The standard UNDP/GEF project evaluation TOR will be used. This will include:</p> <p>Lead the mid-term review; Work with the local evaluation consultant in order to assess the project progress, achievement of results and impacts; develop draft evaluation report and discuss it with the project team, government and UNDP; As necessary participate in discussions to extract lessons for UNDP and GEF.</p>
Evaluation expert for Terminal evaluation	3000	6	<p>The standard UNDP/GEF project evaluation TOR will be used. This will include:</p> <p>Lead the Terminal evaluation; Work with the local evaluation consultant in order to assess the project progress, achievement of results and impacts; develop draft evaluation report and discuss it with the project team, government and UNDP; As necessary participate in discussions to extract lessons for UNDP and GEF.</p>

Position/Service Titles	\$/ person week	Estimated person weeks	Tasks to be performed
For Technical Assistance (Component 2)			
<i>National Consultants</i>			
Chief Technical Adviser	1000	5	<p>Provide overall technical backstopping to the project activities under Outcome 2 to ensure quality and timeliness of all deliverables. Render technical advice and inputs to the NPD, Project Manager, SFA and other government counterparts. Provide technical coordination to the two Local Technical Advisers to ensure a consistent approach at Daxing'anling Landscape level. Provide required technical inputs to PM for review and preparation of Terms of Reference for contractors. In particular:</p> <p><u>Output 2.1 – PA Institutional strengthening plan</u></p> <ul style="list-style-type: none"> ▪ Working closely with the two LTAs, take lead responsibility for ensuring technical consistency and quality and timeliness of delivery between the two FMAs to ensure a coherent approach for the PA Institutional strengthening plan. <p><u>Output 2.4 – PA staff skills enhanced</u></p> <ul style="list-style-type: none"> ▪ In view of the critical importance of capacity building of the FMA staff, maintain strategic oversight for the technical quality and timeliness of delivery of Output 2.4 - the design and establishment of a Biodiversity Conservation and PA Management Training Programme for each FMA.
Local Technical Adviser (Heilongjiang)	750	60	<p>Provide overall technical lead to ensure technical quality and timely delivery of all outputs under Outcome 2 in Heilongjiang Province section in close coordination with other consultants and contractors; Coordinate closely with the CTA and LTA for Inner Mongolia to ensure maximum synergy and effectiveness in project delivery;</p> <p>Provide technical support to all project implementation activities in Heilongjiang Province section, including facilitating and supporting workshops, task forces and training programmes, and developing technical documents. In particular:</p> <p><u>Output 2.1 – PA institutional strengthening plan</u></p> <p><u>Output 2.2 – Strengthened PA system management</u></p> <p><u>Output 2.4 – PA staff skills enhanced</u></p> <p><u>Output 2.5 – PA and biodiversity information management system</u></p>
Local Technical Adviser 2 (Inner Mongolia)	750	60	<p>Provide overall technical lead to ensure technical quality and timely delivery of all outputs under Outcome 2 in Inner Mongolia section in close coordination with other consultants and contractors; Coordinate closely with the CTA and LTA for Heilongjiang to ensure maximum synergy and effectiveness in project delivery;</p> <p>Provide technical support to all project implementation activities in Inner Mongolia section, including facilitating and supporting workshops, task forces and training programmes, and developing technical documents. In particular:</p> <p><u>Output 2.1 – PA institutional strengthening plan</u></p> <p><u>Output 2.2 – Strengthened PA system management</u></p> <p><u>Output 2.4 – PA staff skills enhanced</u></p> <p><u>Output 2.5 – PA and biodiversity information management system</u></p>
PA Legislation specialist	900	12	<p>Working closely with the PM and DPMs, CTA, LTAs and other consultants, the specialist will provide part-time but continuous technical support for several deliverables concerning biodiversity and PA legislation under Outcome 2 for the duration of the project period. Tasks will entail:</p> <p><u>Output 2.2 - Systemic capacity strengthened:</u></p> <ul style="list-style-type: none"> ▪ Review, in a participatory way, existing national and provincial regulations and guidelines for wetlands, biodiversity and PAs and EIA/SEA; identify gaps and coherence with the ecosystem approach. ▪ Make detailed recommendations for enhancing existing regulations and guidelines or developing new regulations and guidelines to fill priority gaps and promote their development ▪ Support legal drafting of new regulations and guidelines

Position/Service Titles	\$/ person week	Estimated person weeks	Tasks to be performed
			<ul style="list-style-type: none"> Review needs and options to provide PA staff (rangers) with a mandate for enforcement of legislation, and make appropriate recommendations
PA Financing specialist	900	35	<p>Working closely with the PM and DPMs, CTA, LTAs, the international Financing Specialist and other consultants (particularly tourism specialists), the specialist will provide part-time but continuous technical support for several outputs concerning biodiversity and PA legislation under Outcome 2 for the duration of the project period. Tasks will entail:</p> <p><u>Output 2.3 - PA system business plan and improved resource allocation</u></p> <ul style="list-style-type: none"> Bring best practice approaches on PA Financing from elsewhere in China to the project Based on the institutional development plans, develop a realistic costing of managing Daxing'anling's PA system; Analyse in detail the current revenue streams for the Daxing'anling's PA system, including preparing a comprehensive list of the current revenue generating activities for the PAs Identify and assess potential revenue generating mechanisms - both traditional and innovative, estimating projections of the potential revenue over 10 years, comparing this with the itemized investment list needed to fully activate and process these revenue generating activities; Conduct an in-depth feasibility study of further using the eco-compensation schemes for PA financing; Conduct an in-depth feasibility study of using ecotourism to generate new funds for PA management, based on the two demonstration sites. Develop a business plan for achieving financial sustainability of the overall PA system Develop detailed business plans for the sustainable financing of the two project demonstration sites
International consultants			
International Wetland conservation specialist	3000	5	<p>Provide high level technical advice to SFA, FMAs, provincial governments and project staff on key strategic and policy issues concerning wetland conservation and application of the ecosystem approach under Outcome 2; bring international best practice approaches on wetland conservation to the project; provide specific technical input on wetland conservation to all aspects of project implementation. In particular:</p> <p><u>Outputs 2.1, 2.2 and 2.3 – Institutional, systemic and financial strengthening</u></p> <ul style="list-style-type: none"> Assist the SFA and FMAs through advising the institutional, systemic and financial strengthening processes to ensure effective outcomes for wetland conservation and PA management; <p><u>Output 2.4 – PA staff skills enhanced</u></p> <ul style="list-style-type: none"> Provide strategic advice and technical inputs to the development of the strategic training programme and to the individual training modules for staff ensuring maximum benefits for wetland conservation and PA management <p><u>Output 2.5 – PA and biodiversity information management system</u></p> <ul style="list-style-type: none"> Provide strategic advice and technical inputs to the development of the information management system ensuring maximum benefits for wetland conservation and PA management
<i>PA Financing specialist</i>	3000	6	<p>Provide high level technical advice to SFA, FMAs and project staff on PA financing; bring international best practice approaches on PA financing to the project; provide technical support to the national PA Financing specialist</p> <p><u>Output 2.3 - PA system business plan and improved resource allocation</u></p> <ul style="list-style-type: none"> Review and advise on the costing estimates for managing Daxing'anling's PA system and current revenue streams Identify and assess potential revenue generating mechanisms - both traditional and innovative, estimating projections of the potential revenue over 10 years, comparing this with the itemized investment list needed to fully activate and process these revenue generating activities;

Position/Service Titles	\$/ person week	Estimated person weeks	Tasks to be performed
			<ul style="list-style-type: none"> Review and advise the feasibility studies of further using the eco-compensation schemes and ecotourism for PA financing; Support participatory development of a business plan for achieving financial sustainability of the overall PA system Support participatory development detailed business plans for the sustainable financing of the two project demonstration sites
For Technical Assistance (Component 3)			
<i>National Consultants</i>			
Chief Technical Adviser	1000	5	<p>Provide overall technical backstopping to the project activities under Outcome 3 to ensure quality and timeliness of all deliverables. Render technical advice and inputs to the NPD, Project Manager, SFA and other government counterparts. Provide technical coordination to the two Local Technical Advisers to ensure a consistent approach at Daxing'anling Landscape level. Provide required technical inputs to PM for review and preparation of Terms of Reference for contractors. In particular:</p> <p><u>All Outputs</u></p> <p>Working closely with the two LTAs, ensure technical quality and consistency of work between the two demonstration sites, and maximise up-scaling of experiences to PAs across the Daxing'anling landscape.</p>
Local Technical Adviser 1 (Heilongjiang)	750	30	<p>Provide overall technical lead to ensure technical quality and timely delivery of all outputs under Outcome 3 in Heilongjiang Province section in close coordination with other consultants and contractors; Coordinate closely with the CTA and LTA for Inner Mongolia to ensure maximum synergy and effectiveness in project delivery;</p> <p>Provide technical support to all project implementation activities in Heilongjiang Province section, including facilitating and supporting workshops, task forces and training programmes, and developing technical documents. In particular:</p> <p><u>Output 3.1 – Integrated wetland management plans</u></p> <p><u>Output 3.3 – Effective conservation of biodiversity</u></p> <p><u>Output 3.4 – Sustainable use of biodiversity</u></p>
Local Technical Adviser 2 (Inner Mongolia)	750	30	<p>Provide overall technical lead to ensure technical quality and timely delivery of all outputs under Outcome 3 in Inner Mongolia section in close coordination with other consultants and contractors; Coordinate closely with the CTA and LTA for Heilongjiang to ensure maximum synergy and effectiveness in project delivery;</p> <p>Provide technical support to all project implementation activities in Inner Mongolia section, including facilitating and supporting workshops, task forces and training programmes, and developing technical documents. In particular:</p> <p><u>Output 3.1 – Integrated wetland management plans</u></p> <p><u>Output 3.3 – Effective conservation of biodiversity</u></p> <p><u>Output 3.4 – Sustainable use of biodiversity</u></p>
Biodiversity monitoring specialist	900	60	<p>Working closely with the PM and DPMs, CTA, LTAs, the international Wetland Conservation specialist and other consultants, the specialist will provide part-time but continuous technical support for developing a biodiversity and PA ecological health monitoring system, and providing training for this under Outcome 3 for the duration of the project period. Tasks will entail:</p> <p><u>Output 3.2 – Biodiversity and ecological health monitoring system</u></p> <ul style="list-style-type: none"> Review existing biodiversity and ecological health monitoring programmes, particularly in the 2 demonstration sites, but also in other PAs through the Daxing'anling; identify gaps In a participatory way, develop a model biodiversity and ecological health monitoring programme for each of the two demonstration sites including the selection of appropriate indicators, development of standardised methodologies etc Coordinate and provide training for the model biodiversity and ecological health monitoring programme, including development of a training module that can be used

Position/Service Titles	\$/ person week	Estimated person weeks	Tasks to be performed
			<p>elsewhere in the PA network, engaging communities where-ever possible</p> <ul style="list-style-type: none"> ▪ Advice on the needs for, and purchase of monitoring equipment ▪ Establish mechanisms for managing the data collected, and reporting and communicating on the results ▪ Conduct the EHI scorecard assessment at the time of the mid-term and terminal evaluations, as well as updating the status of the projects target indicator species. ▪ Identify, prioritise and support research programmes to fill gaps in knowledge of biodiversity
Ecotourism specialist	900	30	<p>Working closely with the PM and DPMs, CTA, LTAs, the international Ecotourism Specialist and other consultants (particularly PA finance specialist), the specialist will provide part-time but continuous technical support concerning the development of ecotourism under Outcome 3 for the duration of the project period. Tasks will entail:</p> <p><u>Output 3.4 – Sustainable use of biodiversity (eco-tourism)</u></p> <ul style="list-style-type: none"> ▪ Review of the ecotourism developments, plans and opportunities at the two project demonstration areas, and to a lesser extent for the entire PA network. ▪ Introduce best practices on ecotourism from elsewhere in China ▪ In a participatory way, develop specific and costed model ecotourism plans for the two project demonstration areas, and to a lesser extent for the entire PA network, with particular attention to ensuring minimal environmental or social negative impacts ▪ Coordinate and provide training for the model ecotourism developments, including development of a training module that can be used elsewhere in the PA network ▪ Support the PA Financing Consultant to develop mechanisms to generate sustainable financing for PA management from ecotourism, through access fees, business concessions etc.. ▪ Work with the community co-management specialist and local community representatives to identify mechanisms to maximise the benefits of local communities from ecotourism development
Community co-management specialist	900	20	<p>Working closely with the PM and DPMs, CTA, LTAs, the international Ecotourism Specialist and other consultants (particularly PA finance specialist), the specialist will provide part-time but continuous technical support concerning the development of ecotourism under Outcome 3 for the duration of the project period. Tasks will entail:</p> <p><u>Output 3.4 – Sustainable use of biodiversity (eco-tourism)</u></p> <ul style="list-style-type: none"> ▪ In a participatory way, assess and develop co-management arrangements to ensure that the harvest of berries from wetland habitats (as an example of a non-timber forest product) is sustainable and provides maximum benefits to local communities. ▪ Coordinate and provide training for the model approaches to co-management, including development of training modules that can be used elsewhere in the PA network ▪ Work with the ecotourism specialist and local community representatives to identify mechanisms to maximise the benefits of local communities from ecotourism development <p><u>Output 3.5 – PA Management effectiveness raised through public participation and awareness</u></p> <ul style="list-style-type: none"> ▪ Support the PA managers to establish and maintain Community Forums for the two demonstration sites ▪ Support local communities, and particularly women, youth and minority groups through training and other mechanisms to enhance their participation in the management and governance of the two demonstration sites, making particular use of traditional knowledge. ▪ Support the development and implementation of a Communication, Education, Participation and Awareness (CEPA) Plan for each of the two demonstration sites ▪ Coordinate and provide training for the model CEPA plans and approaches, including

Position/Service Titles	\$/ person week	Estimated person weeks	Tasks to be performed
			development of a training module that can be used elsewhere in the PA network
<i>International Consultants</i>			
International Wetland conservation specialist	3000	5	<p>Provide high level technical advice to SFA, FMAs, provincial governments and project staff on key strategic and policy issues concerning wetland conservation and application of the ecosystem approach under Outcome 3; bring international best practice approaches on wetland conservation to the project; provide specific technical input on wetland conservation to all aspects of project implementation. In particular:</p> <p><u>Output 3.1 – Integrated management plans</u></p> <ul style="list-style-type: none"> ▪ Ensure best international practice is applied to the development of integrated management plans ▪ Contribute to training, and the development of a training module on integrated wetland management planning <p><u>Output 3.2 – Biodiversity and ecological health monitoring</u></p> <ul style="list-style-type: none"> ▪ Provide strategic advice and technical inputs to the development of the biodiversity and ecological health monitoring programme and to the individual training modules for staff ensuring maximum benefits for wetland conservation and PA management <p><u>Output 3.3 – Biodiversity conservation</u></p> <ul style="list-style-type: none"> ▪ Provide strategic advice and technical inputs to the development of measures to restore degraded habitats and conserve threatened species biodiversity and to the related training modules for staff ensuring maximum benefits for wetland conservation and PA management <p><u>Outputs 3.4 and 3.5 – Sustainable use and CEPA</u></p> <ul style="list-style-type: none"> ▪ Provide strategic advice and technical inputs to the development of co-management approaches to sustainable use of biodiversity ensuring maximum benefits for wetland conservation and PA management ▪ Provide strategic advice and technical inputs to the development and implementation of CEPA plans ensuring enhanced participation of communities in the governance and management of PAs
Ecotourism specialist	3,000	5	<p>Provide high level technical advice to SFA, FMAs, provincial governments and project staff on ecotourism development, particularly for PAs; bring international best practice approaches on ecotourism to the project; provide technical support to the national Ecotourism specialist</p> <p><u>Output 3.4 – Sustainable use of biodiversity (eco-tourism)</u></p> <ul style="list-style-type: none"> ▪ Assess the review of the ecotourism developments, plans and opportunities at the two project demonstration areas, and to a lesser extent for the entire PA network. ▪ Introduce best practices on ecotourism from elsewhere in the world ▪ Support development of, and review, the model ecotourism plans for the two project demonstration areas, and to a lesser extent for the entire PA network, with particular attention to ensuring minimal environmental or social negative impacts ▪ Provide training for the model ecotourism developments, including input to the development of a training module that can be used elsewhere in the PA network ▪ Support and review mechanisms to generate sustainable financing for PA management from ecotourism through access fees, business concessions etc.. ▪ Support and review mechanisms to maximise the benefits of local communities from ecotourism development

PART VII: Stakeholder Involvement Plan

STAKEHOLDER IDENTIFICATION

During the project preparation stage, a stakeholder analysis was undertaken in order to identify key stakeholders, assess their interests in the project and define their roles and responsibilities in project implementation. The baseline report provides further details of the review and analysis and is contained in Annex 7. Tables 15 and 16 below describe the major categories of stakeholders identified, and the level of involvement envisaged in the project.

INFORMATION DISSEMINATION, CONSULTATION, AND SIMILAR ACTIVITIES THAT TOOK PLACE DURING THE PPG

Throughout the project's development, close contact was maintained with key stakeholders at the provincial level through the daily activities of the local members of the PPG team, and through two 8-10 day visits to the project area by the International Team Leader and National Co-Leader. All affected government institutions were directly involved in project development, as were research and academic institutions (through other specialist consultants). Numerous consultations occurred with all of the stakeholders to discuss different aspects of project design. These consultations included: bilateral discussions; visits to pilot sites; workshops and electronic communications. A working group, with representation of key stakeholders was constituted by each FMA to oversee the project preparation phase. The project activities were presented to stakeholders at initial working group meetings for review and discussions, and a revised draft of the project document was presented to a follow-up working group meeting for approval and endorsement. Consultation meetings were organised with local community representatives.

APPROACH TO STAKEHOLDER PARTICIPATION

The project's approach to stakeholder involvement and participation is premised on the principles outlined in the table below.

Table 14: Stakeholder participation principles

Principle	Stakeholder participation will:
Value Adding	Be an essential means of adding value to the project
Inclusivity	Include all relevant stakeholders
Accessibility	Be accessible and promote involvement in decision-making process
Transparency	Be based on transparency and fair access to information; main provisions of the project's plans and results will be published in local mass-media
Fairness	Ensure that all stakeholders are treated with respect in a fair and unbiased way
Accountability	Be based on a commitment to accountability by all stakeholders
Constructive	Seek to manage conflict positively and to promote the public interest
Redressing	Seek to redress inequity and injustice
Capacitating	Seek to develop the capacity of all stakeholders
Needs Based	Be based on the perceived and real needs of all stakeholders
Flexible	Be flexibly designed and implemented
Rational and Coordinated	Be rationally planned and coordinated, and not on an <i>ad hoc</i> basis
Excellence	Be subject to on-going reflection and improvement

The project will focus stakeholder engagement at two levels of intervention: (i) working with public sector institutions and agencies (primarily the FMAs and their Bureaus, as well as provincial

government) in order to strengthen their capacity to consolidate, expand and effectively manage the PA network and to align project activities with government’s strategic priorities; and (ii) working directly with local communities and their representatives, formal and informal resource users (rights holders), and individuals to mitigate impacts and optimise benefits of project activities.

STAKEHOLDER INVOLVEMENT PLAN

The following stakeholders have been identified and will be fully involved in the project implementation.

Table 15: Key biodiversity stakeholders in the Daxing’anling and roles and responsibilities in the project

Stakeholder	Roles and Responsibilities
Ministry of Finance	GEF Operational Focal Point (OFP). Coordination and implementation of GEF projects
State Forestry Administration -SFA (including Wetland Conservation and Management Centre)	<p>Executing Agency for project implementation as the supervisory organisation for the two co-executing agencies (FMAs). The SFA will provide the NPD and host the PMO. SFA will chair the PSC and the DBCC, and will take the lead on implementation of outputs under Outcome 1.</p> <p>Responsible for forest lands, most of China’s nature reserves, wildlife issues, wildlife trade (CITES), wetlands protection (Ramsar Convention), drafting of departmental level regulations especially wetlands. In Daxing’anling landscape, SFA is responsible for sustainable utilisation of the timber resources and set quota for timber extraction. SFA is also responsible for ensuring effective wetland PA management and providing supervisory and technical support to PA management. Manages the vast majority of NRs (over 80% of the NR areas) and provide financial support for national NRs. SFA’s Academy of Forestry Inventory and Planning is responsible for providing informed data and information for SFA to make relevant decisions</p>
Heilongjiang Daxing’anling Forestry Management Authority (FMA)	<p>The main co-executing (and co-financing) agency for the project in the Heilongjiang section and for the Duobuku’er NNR. Will host the PMU in Jiagedaqi.</p> <p>Responsible their section of the Daxing’anling Region (83,500 km²) including ecological conservation and development as well as associated governance within their jurisdiction as assigned by the State of Council, notably covering managing and conserving forests (and wetlands) and associated wild resources, developing nature reserves, preventing forest fires and conserving natural forests. Reports to the SFA and employs 62,969 staff.</p> <p>The administrative arm of the FMA is responsible for the development and management of nature reserves through its subsidiary institutions. The business arm of the FMA (Forestry Management Corporation) is responsible for commercial forestry operation including forest environment monitoring, carrying out quarantine of animals and plants, running state-owned forest resources and managing subordinate forestry companies in a for-profit way except undertaking administrative functions of Daxing’anling Forestry Management Bureaus.</p> <p>Key departments include: Planning, Wildlife and Plant Protection, Fire control, Forest Management and Production, Agriculture, Livestock, Fisheries, Green Food development, Industry, Infrastructure and construction, Natural Resources, Communications, Local Forest Management Bureaus</p>
Inner Mongolia Daxing’anling Forestry Management Authority (FMA)	<p>The main co-executing (and co-financing) agency for the project in the Inner Mongolia section and for the Genheyuan NWP. Will host the PMU in Genhe City, with a Local Technical Adviser also based in Yakeshi.</p> <p>Responsible their section of the Daxing’anling Region (106,275 km²) including ecological conservation and development as well as associated governance within their jurisdiction as assigned by the State of Council, notably covering managing and conserving forests (and</p>

Stakeholder	Roles and Responsibilities
	<p>wetlands) and associated wild resources, developing nature reserves, preventing forest fires and conserving natural forests. Reports to the SFA and employs 58,513 staff.</p> <p>The administrative arm of the FMA is responsible for the development and management of nature reserves through its subsidiary institutions. The business arm of the FMA (Forestry Management Corporation) is responsible for commercial forestry operation including forest environment monitoring, carrying out quarantine of animals and plants, running state-owned forest resources and managing subordinate forestry companies in a for-profit way except undertaking administrative functions of Daxing'anling Forestry Management Bureaus.</p> <p>Key departments include: Planning, Wildlife and Plant Protection, Fire control, Forest Management and Production, Agriculture, Livestock, Fisheries, Green Food development, Industry, Infrastructure and construction, Natural Resources, Communications, Local Forest Management Bureaus</p>
Local Forestry Management Bureaus (of the FMAs)	Responsible for forests, wetlands and associated wild resources management, forest nursing, managing nature reserves and wetland parks, fire prevention etc. in line with the ultimate mission of Daxing'anling Forestry Management Bureaus.
Site-level Protected Area Management Authorities (of the FMAs) in Daxing'anling Region	<p>The key implementing agencies for site level project activities.</p> <p>Specifically responsible for wildlife conservation and management, environmental promotion, drafting wildlife conservation local regulations, nature reserve's establishment, guiding forest resource-based tourism, wildlife monitoring, and inventory research as well as disease control and utilization.</p>
Provincial Government departments of the Heilongjiang Province ²⁸ and Inner Mongolia Autonomous Region	<p>All these departments have a key role in mainstreaming biodiversity into their planning and activities.</p> <p><u>Land Resources Management Bureau:</u> Responsible for land management, conservation and planning, in particular regulating land use, mining resources' exploitation in the region.</p> <p><u>Environment Protection Bureau:</u> Responsible for coordinating and supervising key environmental issues, including controlling environmental pollution, reducing carbon emissions, and guiding, coordinating and overseeing ecological conservation work and environment-related international cooperation.</p> <p><u>Agriculture Management Association:</u> Responsible for agriculture, fisheries, and husbandry, including land tenure conversion, agricultural land use planning, and agricultural biodiversity conservation, guiding the conservation of ecological environment of fishing waters and aquatic wildlife, and promoting environmentally friendly food production projects.</p> <p><u>Water Resources Management Bureau:</u> Responsible for sustainable water development and utilization, water resources conservation, hydrological construction and guiding the development and governance of rivers, lakes and streams.</p> <p><u>Fishery Management Bureau:</u> Responsible for fishery-related activities, in particular fishery management.</p> <p><u>Construction Bureau:</u> Responsible for residential housing management and regulation.</p> <p><u>Development Reform Commission:</u> Responsible for sustainable development, economic development projects and monitoring implementation of plans and projects</p>

²⁸ The situation is different in Inner Mongolia, where the FMA operates independently of the regional government




Stakeholder	Roles and Responsibilities
People's Congress of Heilongjiang ²⁹ and Inner Mongolia Autonomous Region	Responsible for coordination of legislation and regulation functions in Heilongjiang, including reviewing and approving the regional regulations on the management of PAs.
Local communities (PA neighbours, including forest workers)	<p>As the primary resource users and traditional management of wetland and forest ecosystem in the region, local communities closely interacting with PAs will participate in community-related project activities by contributing their traditional and/or rich resources management and utilization knowledge and culture. Local communities will be the permanent supporters for the effectiveness of protected areas network in the region. Therefore, it is essential for the project to build their interests in PA conservation.</p> <p>Local communities benefit from biodiversity in the Daxing'anling through economic activities such as forestry, NTFP harvest, agriculture, tourism. They also can negatively impact biodiversity through illegal activities, pollution and wastes and positively impact biodiversity through sustainable lifestyles and volunteering.</p> <p>Possible beneficiaries and implementing partners for site level activities of the project – to be engaged through local community forums. Although the region is sparsely populated, neighbouring communities to the PAs (where applicable) will have a major role as hubs for non-timber industry development initiatives that mainly engage local citizens. The Ewenki indigenous community subsist on grazing and hunting near the Genheyuan National Wetland Park with a special traditional hunting permit granted to the people.</p>
NGOs and other civil society organizations	<p>Representing the community</p> <p>Involved in project implementation by providing technical and human support (eg volunteers) for conservation activities, monitoring, environmental awareness and so on.</p>
Media	TV, radio, newspapers, social media can help with raising environmental awareness and promoting project activities.
Private sector	Private Sector is a major resource user and has potentially negative impacts on the integrity of biodiversity and PAs. Active engagement of the existing and emerging private sector companies (tourism, mining, timber and non-timber forest-product processing, infrastructure etc.) will be sought as appropriate for implementation of the project.
Academy of Forest Inventory and Planning (SFA, SFA Daxing'anling, and Inner Mongolia Daxing'anling)	Responsible for wetland and forest survey, monitoring, and planning, including developing standards, GIS-based database and reporting systems.
Chinese Academy of Sciences and its associated institutes, Chinese Academy of Forestry, Heilongjiang Academy of Agricultural Sciences, Northeast Institute of Geography and Agro-	Technical pools available for forestry, hydrological, botanical and zoological perspectives. Available for sub-contracted research, specialist training workshops, PA expansion consultancy and etc.

²⁹ The situation is different in Inner Mongolia, where the FMA operates independently of the regional government

Stakeholder	Roles and Responsibilities
ecology, Chinese Academy of Sciences Harbin's Northeast Forestry University, colleges of the Inner Mongolia University in Huhhot	

Table 16: A preliminary list of responsibilities of key organizations and social communities related to the project

Stakeholders	Policy	Planning	Laws and regulations	Research	Promotion	Training	Partnerships	Project Implementation	M&E
State Forestry Administration									
FMA/FMCs and their sectoral depts and FMBs									
People's Congresses of Heilongjiang & Inner Mongolia									
Provincial Development and Reform Commissions									
Provincial Departments of Water Resources									
Provincial Bureaus of Environmental Protection									
Provincial Department of Tourism									
Private sector									
Media									
Institutes and Universities									
National/international NGOs (WWF etc)									
Local community CBOs in and near demo areas									

 Major responsibilities
  Secondary responsibility
  Not responsible

The project proposes a mechanism to achieve broad-based stakeholder involvement in the project preparation and implementation processes. Stakeholder participation will include the following four components:

- Project Steering Committee (PSC):
- Daxing'anling Biodiversity Conservation Committee (landscape level) and two Project Coordination Groups (province-section level)
- Project Management Office (Beijing) and two Project Management Units (province sections)
- Community Forums

Table 17: Suggested members of PSC, PMO/PMUs, DBCC and PCGs and Community Forums

Project Steering Committee (PSC)	Project Management Office and Project Management Units	Daxing'anling Biodiversity Conservation Committee and Project Coordination Groups	Community Forums
Participating agencies: SFA, UNDP, MOF, FAO, Heilongjiang Daxing'anling FMA, Inner Mongolia Daxing'anling FMA	SFA and Heilongjiang Daxing'anling FMA, Inner Mongolia Daxing'anling FMA. PMO: NPD, PM, CTA, Admin. Assistant, Communications Officer/Translator, Accounting and Disbursement Officer PMUs: DPM, Local Technical Advisor, Project / Communications Assistant, Finance Officer	DBCC: SFA, Heilongjiang Daxing'anling FMA, Inner Mongolia Daxing'anling FMA, Wildlife Departments, demonstration sites, other important mainstreaming departments PCGs: Sectoral representation in each province section for: Conservation, Science, Water, Environment, Silviculture, Resource Management, Tourism, Planning, Industry, Finance, Agriculture, Livestock & Fishery, Communications, demonstration sites, community groups	Representatives of local community groups including women, youth, retired people, ethnic and religious minority groups, resource users

Long-term stakeholder participation

The project will provide the following opportunities for long-term participation of all stakeholders, with a special emphasis on the active participation of local communities:

Decision-making – through the Project Steering Committee, to ensure a participatory and transparent process involving the confirmation of all project stakeholders; conducting one-to-one consultations with all stakeholders; development of Terms of Reference and ground-rules; inception meeting.

Capacity building – at systemic, institutional and individual level – is one of the key strategic interventions of the project and will target all stakeholders that have the potential to be involved in planning, implementing and/or monitoring activities that will enhance the conservation of biodiversity and management effectiveness in and around the PAs. The project will give particular attention to stakeholders operating at the community level to enable them to actively participate in measures to improve the management effectiveness of the PAs, and enhance the values of the PAs to people's lives.

Communication - will include the participatory development of an integrated communication strategy. The communication strategy will be based on the following key principles:

- providing information to all stakeholders;
- promoting dialogue between all stakeholders;
- promoting access to information.

Finally, the project will be launched by a well-publicized multi-stakeholder inception workshop. This workshop will provide an opportunity to provide all stakeholders with updated information on the project as well as a basis for further consultation during the project's implementation, and will refine and confirm the work plan.

The project's design incorporates several features to ensure on-going and effective stakeholder participation in the project's implementation. The mechanisms to facilitate involvement and active participation of different stakeholder in project implementation will comprise a number of different components:

i) Project inception workshop

The project will be launched by a multi-stakeholder workshop bringing together key implementing partners from both the Heilongjiang and Inner Mongolia sections. This workshop will provide an opportunity to provide all stakeholders with the most updated information on the project, the work plan, and will establish a basis for further consultation as the project's implementation commences.

ii) Constitution of Project Steering Committee

A Project Steering Committee will be constituted to ensure broad representation of all key interests throughout the project's implementation. The representation, and broad terms of reference, of the PSC are described in the Management Arrangements in Part III of the Project Document.

iii) Establishment of the Project Management Office and two provincial Project Management Units

The Project Management Office, located with SFA in Beijing, will take direct operational responsibility for facilitating national stakeholder involvement and ensuring increased national ownership of the project and its results. The two provincial Project Management Units will be located with the respective FMAs in Heilongjiang Province and Inner Mongolia, and will take direct operational responsibility for facilitating provincial and local stakeholder involvement and ensuring increased local ownership of the project and its results to ensure coordination among key stakeholder organizations at the provincial level during the project period.

iv) Establishment of local technical groups and task forces

A Daxing'anling Biodiversity Conservation Committee, with two province section Project Coordination Groups, will be established to assure the formal inter-sectoral and inter-provincial coordination and inputs of all key stakeholders within the Daxing'anling region.

At the activity level, local specialist task forces (e.g., legal and institutional review, biodiversity monitoring, communications, education and community participation) will be established as required, to facilitate the active participation of expert institutions, organisations and individuals in the implementation of the respective project activities. Different stakeholder groups may take the lead in each of the task forces, depending on their respective mandates.

v) Project communications

The project will develop, implement and maintain a communications strategy to ensure that all stakeholders are informed on an on-going basis about: the project's objectives; the projects activities; overall project progress; and the opportunities for stakeholders' involvement in various aspects of the project's implementation.

vi) Implementation arrangements

A number of project activities have specifically been designed to directly involve local stakeholders in the implementation of, and benefit from, these activities. These include: the creation or development of new opportunities for sustainable livelihood options and natural resource uses for local communities, stemming from the feasibility assessment and co-management models.

vii) Formalising cooperative governance structures

The project will actively seek to formalise cooperative governance structures at the level of PAs, to strengthen participation of local stakeholders in the planning and management of individual NRs.

viii) Capacity building

All project activities are strategically focused on building capacity – at systemic, institutional and individual levels – of the key stakeholder groups to ensure sustainability of project investments. The project will also seek to raise public awareness of the values of the biodiversity of the Daxing'anling region and the value and importance of ecosystem services derived from effective habitat conservation.

PROJECT ANNEXES

Annex 1. BD-1 Tracking Tool (METT and Financial sustainability scorecard)

Annex 2. Capacity Development Scorecard for Daxing'anling Landscape PA Agencies

Annex 3. Ecosystem Health Index (Narrative + assessment results (baselines))

Annex 4. The protected areas of the Daxing'anling Landscape (July 2012)

Annex 5. Environmental and social screening summary

Annex 6. Economic valuation component

Annex 7. Daxing'anling Landscape Baseline report

Annex 8. Letter of Agreement for UNDP Direct Project Services

Annex 9. Conclusions from consultation with representatives of the Aolugoya indigenous people.

ANNEX 1. BD-1 TRACKING TOOL (METT AND FINANCIAL SUSTAINABILITY SCORECARD)

*Full Tracking Tool is annexed as an excel file.

METT Section One Data:

Name of reviewers completing tracking tool and completion dates

	Name	Title	Agency
CEO Endorsement Feb. 2013	Lucy Yu	Programme Consultant	
Project Mid-term			
Final Evaluation/project completion			

Project coverage in hectares

Targets and Timeframe	Foreseen at project start (ha)	Achievement at Mid-term Review of Project (ha)	Achievement at Final Evaluation of Project (ha)
A. Total Extent in hectares of protected areas targeted by the project by WWF Terrestrial MHTs			
Temperate broadleaf and mixed forests (temperate, humid)	23,468		
Temperate coniferous forests (temperate, humid to semi-humid)	1,728,077		
Temperate grasslands, savannas, and shrublands (temperate, semi-arid)	81,963		
Sub-total	1,833,508		
B. Total Extent in hectares of protected areas targeted by the project by WWF Freshwater MHTs			
B.1 By freshwater MHTs			
Temperate floodplain rivers and wetlands	441,039		
Temperate upland rivers	825,753		
Sub-total	1,266,792		
Grand Total (A+B)	3,100,300		

ANNEX 2. UNDP CAPACITY DEVELOPMENT SCORECARD (MSL PROGRAMME)

Daxing'anling Project-Heilongjiang Forestry Management Authority (HFMA)

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
1. Capacity to conceptualize and formulate policies, legislations, strategies and programmes	1. The protected area agenda is being effectively championed / driven forward	There is essentially no protected area agenda;	0	2	The Wildlife Protection Department of Daxing'anling Forestry Management Authority (WPD-DFMA) is responsible for the establishment and management of nature reserves network in the landscape. WPD-DFMA developed the Master Plan for Daxing'anling Forestry Nature Reserve Network Development. However, due to insufficient budget, staff, equipment, and communication as well as transportation facilities, the master plan has not been fully implemented yet.
		There are some persons or institutions actively pursuing a protected area agenda but they have little effect or influence;	1		
		There are a number of protected area champions that drive the protected area agenda, but more is needed;	2		
		There are an adequate number of able "champions" and "leaders" effectively driving forwards a protected area agenda	3		
	2. There is a strong and clear legal mandate for the establishment and management of protected areas	There is no legal framework for protected areas;	0	1	
		There is a partial legal framework for protected areas but it has many inadequacies;	1		
		There is a reasonable legal framework for protected areas but it has a few weaknesses and gaps;	2		
		There is a strong and clear legal mandate for the establishment and management of protected areas	3		
	3. There is an institution or institutions responsible for protected areas able to strategize and plan.	Protected area institutions have no plans or strategies;	0	1	
		Protected area institutions do have strategies and plans, but these are old and no longer up to date or were prepared in a totally top-down fashion;	1		
		Protected area institutions have some sort of mechanism to update their strategies and plans, but this is irregular or is done in a largely top-down fashion without proper consultation;	2		
		Protected area institutions have relevant, participatorially prepared, regularly updated strategies and plans	3		
2. Capacity to implement policies, legislation, strategies and programmes	4. There are adequate skills for protected area planning and management	There is a general lack of planning and management skills;	0	1	
		Some skills exist but in largely insufficient quantities to guarantee effective planning and management;	1		
		Necessary skills for effective protected area management and planning do exist but are stretched and not easily available;	2		
		Adequate quantities of the full range of skills necessary for effective protected area planning and management are easily available	3		

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
	5. There are protected area systems	No or very few protected area exist and they cover only a small portion of the habitats and ecosystems;	0	2	There are 19 nature reserves in the regional forestry nature reserve network, including 5 national, 3 provincial and 11 local nature reserves. These nature reserves are managed by two agencies with different reporting lines—nature reserves within the jurisdiction of DFMA governed by Wildlife Conservation Department with DFMA and others within jurisdiction of local government overseen by relevant environmental protection agencies. Employees of two organizations can frequently exchange their management practices. Specifically, three national nature reserves are under the daily management of nature reserve management bureaus. The other 16 nature reserves are governed by local forestry management bureaus. Current protected area system covers majority of representative habitats and ecosystems in the landscape, but still exists some gaps, for example, to bring areas with endangered species and/or fragile ecosystems into PA system.
		Protected area system is patchy both in number and geographical coverage and has many gaps in terms of representativeness;	1		
		Protected area system is covering a reasonably representative sample of the major habitats and ecosystems, but still presents some gaps and not all elements are of viable size;	2		
		The protected areas includes viable representative examples of all the major habitats and ecosystems of appropriate geographical scale	3		
	6. There is a fully transparent oversight authority (there are fully transparent oversight authorities) for the protected areas institutions	There is no oversight at all of protected area institutions;	0	2	There is no sound oversight mechanism in place to encourage periodic review. Three national nature reserves are managed by corresponding nature reserve management authorities under the governance of DFMA and the rest sub-national 16 nature reserves are administered by local forestry bureaus. Several sectors are in charge of management and budget. Current PA funds are insufficient and lack transparency in the use of funds. This needs to be improved.
		There is some oversight, but only indirectly and in a non-transparent manner;	1		
		There is a reasonable oversight mechanism in place providing for regular review but lacks in transparency (e.g. is not independent, or is internalized) ;	2		
		There is a fully transparent oversight authority for the protected areas institutions	3		
	7. Protected area institutions are effectively led	Protected area institutions have a total lack of leadership;	0	1	The 16 nature reserves under the management of local forestry management bureaus are ineffectively managed due to staff, budget and management capacities' shortage.
		Protected area institutions exist but leadership is weak and provides little guidance;	1		
		Some protected area institutions have reasonably strong leadership but there is still need for improvement;	2		
		Protected area institutions are effectively led	3		
	8. Protected areas have regularly updated, participatorially prepared, comprehensive management plans	Protected areas have no management plans;	0	1	Every nature reserve management bureau developed their master plans and annual work plans but the master plans need to be modified and improved.
		Some protected areas have up-to-date management plans but they are typically not comprehensive and were not participatorially prepared;	1		
		Most Protected Areas have management plans though some are old, not participatorially prepared or are less than comprehensive;	2		
		Every protected area has a regularly updated, participatorially prepared, comprehensive management plan	3		
9. Human resources		Human resources are poorly qualified and unmotivated;	0	1	PA network suffers from professional staff shortage.

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
	are well qualified and motivated	Human resources qualification is spotty, with some well qualified, but many only poorly and in general unmotivated;	1		There is no specific budget for training managers and scientific research personnel. Most training programmes were financially sponsored by external organizations, e.g., SFA. Managers did not receive any standardised professional and financial management trainings. In addition, it is urgent for scientific research staff and professional staff to learn knowledge and skills of community development.
		HR in general reasonably qualified, but many lack in motivation, or those that are motivated are not sufficiently qualified;	2		
		Human resources are well qualified and motivated.	3		
	10. Management plans are implemented in a timely manner effectively achieving their objectives	There is very little implementation of management plans;	0	1	Due to insufficient budget and staff, annual work plans have not been implemented fully, which hampers the achievement of identified objectives.
		Management plans are poorly implemented and their objectives are rarely met;	1		
		Management plans are usually implemented in a timely manner, though delays typically occur and some objectives are not met;	2		
		Management plans are implemented in a timely manner effectively achieving their objectives	3		
	11. Protected area institutions are able to adequately mobilize sufficient quantity of funding, human and material resources to effectively implement their mandate	Protected area institutions typically are severely underfunded and have no capacity to mobilize sufficient resources;	0	1	Funds from special projects, e.g., Natural Forest Protection Programme (NFPP), Nature Reserve Development Projects, and Wetland Restoration and Protection Programme, are the only fund channel for PAs in the region. In 2011, PAs received 3 million USD from national government, which were not sufficient to ensure an effective management. There are no other income resources, such as tourism revenue. PA managers did not obtain any training relating tapping new financial mechanisms.
		Protected area institutions have some funding and are able to mobilize some human and material resources but not enough to effectively implement their mandate;	1		
		Protected area institutions have reasonable capacity to mobilize funding or other resources but not always in sufficient quantities for fully effective implementation of their mandate;	2		
		Protected area institutions are able to adequately mobilize sufficient quantity of funding, human and material resources to effectively implement their mandate	3		
	12. Protected area institutions are effectively managed, efficiently deploying their human, financial and other resources to the best effect	While the protected area institution exists it has no management;	0	2	Institutional management is ineffective and PA managers' capacities and skills are not enough to fulfil their responsibilities. Though the PA institutions have developed a good management mechanism, their executive ability is still barely satisfactory, in particular managerial and collaborative skills.
		Institutional management is largely ineffective and does not deploy efficiently the resources at its disposal;	1		
		The institution(s) is (are) reasonably managed, but not always in a fully effective manner and at times does not deploy its resources in the most efficient way;	2		
		The protected area institution is effectively managed, efficiently deploying its human, financial and other resources to the best effect	3		
	13. Protected area institutions are highly transparent, fully audited, and publicly accountable	Protected area institutions totally untransparent, not being held accountable and not audited;	0	2	Protected area institutions are regularly audited. In light of national-level nature reserve, annual financial audit, off-office audit and budgetary management are mandatory in accordance to relevant policies. An accountability system is in place. However, due to lack of collaboration and monitoring among different nature reserves, the plan
		Protected area institutions are not transparent but are occasionally audited without being held publicly accountable;	1		
		Protected area institutions are regularly audited and there is a fair degree of public accountability but the system is not fully transparent;	2		

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
		The Protected area institutions are highly transparent, fully audited, and publicly accountable	3		management and the financial budgetary management of protected area institutions are not fully perfect.
	14. There are legally designated protected area institutions with the authority to carry out their mandate	There is no lead institution or agency with a clear mandate or responsibility for protected areas;	0	2	PA institutions are empowered to manage protected areas in line with applicable laws and regulations. In fact, financial limitation and limited-competent personnel jointly constrain their performance.
		There are one or more institutions or agencies dealing with protected areas but roles and responsibilities are unclear and there are gaps and overlaps in the arrangements;	1		
		There are one or more institutions or agencies dealing with protected areas, the responsibilities of each are fairly clearly defined, but there are still some gaps and overlaps;	2		
		Protected Area institutions have clear legal and institutional mandates and the necessary authority to carry this out	3		
	15. Protected areas are effectively protected	No enforcement of regulations is taking place;	0	2	A combination of factors reduces the effectiveness of law enforcement, including for communications and transportation equipment shortage, insufficient budget, and understaffing. Therefore, external threats still remain active.
		Some enforcement of regulations but largely ineffective and external threats remain active;	1		
		Protected area regulations are regularly enforced but are not fully effective and external threats are reduced but not eliminated;	2		
		Protected Area regulations are highly effectively enforced and all external threats are negated	3		
	16. Individuals are able to advance and develop professionally	No career tracks are developed and no training opportunities are provided;	0	1	Due to financial deficiency, training plan for existing staff is not fully implemented. PA staff scarcely obtained other training opportunities beyond a few training programmes sponsored by external organizations such as the World Wild Fund for Nature, DPC, and Sino-Japanese Eco-Training Forum.
		Career tracks are weak and training possibilities are few and not managed transparently;	1		
		Clear career tracks developed and training available; HR management however has inadequate performance measurement system;	2		
		Individuals are able to advance and develop professionally	3		
	17. Individuals are appropriately skilled for their jobs	Skills of individuals do not match job requirements;	0	1	Staff develop their own skill training plans that are never implemented. PA staff merely holds very basic skills to execute their job responsibilities. They are rarely exposure to international training materials and experiences. It is critical and urgent for them to learn relevant skills and knowledge to catch up with the trends of PA management.
		Individuals have some or poor skills for their jobs;	1		
		Individuals are reasonably skilled but could further improve for optimum match with job requirement;	2		
		Individuals are appropriately skilled for their jobs	3		
	18. Individuals are highly motivated	No motivation at all;	0	1	There exists a motivation mechanism but many individuals are not fully motivated.
		Motivation uneven, some are but most are not;	1		
		Many individuals are motivated but not all;	2		
		Individuals are highly motivated	3		
	19. There are	No mechanisms exist;	0	1	Mechanisms exist but cannot facilitate skills'

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
	appropriate systems of training, mentoring, and learning in place to maintain a continuous flow of new staff	Some mechanisms exist but unable to develop enough and unable to provide the full range of skills needed;	1		improvement due to budget shortage and lack of training facilities.
		Mechanisms generally exist to develop skilled professionals, but either not enough of them or unable to cover the full range of skills required;	2		
		There are mechanisms for developing adequate numbers of the full range of highly skilled protected area professionals	3		
3. Capacity to engage and build consensus among all stakeholders	20. Protected areas have the political commitment they require	There is no political will at all, or worse, the prevailing political will runs counter to the interests of protected areas;	0	3	Protected areas have strong political commitment they demand.
		Some political will exists, but is not strong enough to make a difference;	1		
		Reasonable political will exists, but is not always strong enough to fully support protected areas;	2		
		There are very high levels of political will to support protected areas	3		
	21. Protected areas have the public support they require	The public has little interest in protected areas and there is no significant lobby for protected areas;	0	1	The public generally support protected areas establishment. However, there is a lack of efficient means and measures to enhance communication with the public and their involvement in PA management.
		There is limited support for protected areas;	1		
		There is general public support for protected areas and there are various lobby groups such as environmental NGO's strongly pushing them;	2		
		There is tremendous public support in the country for protected areas	3		
22. Protected area institutions are mission oriented	Institutional mission not defined;	Institutional mission poorly defined and generally not known and internalized at all levels;	0	2	Institutional mission is well defined. PA management is mission-oriented. Institutional missions are reasonably internalized, but the qualification of staff needs to be improved to fully implement the objectives and desires. In a word, staff lacks professional skills and a good comprehension of their tasks and objectives. Skill improvement is essential.
		Institutional mission poorly defined and generally not known and internalized at all levels;	1		
		Institutional mission well defined and internalized but not fully embraced;	2		
		Institutional missions are fully internalized and embraced	3		
	23. Protected area institutions can establish the partnerships needed to achieve their objectives	Protected area institutions operate in isolation;	0	1	Protected area institutions have established partnerships with some national scientific research agencies and universities, such as Chinese Academy of Sciences, Chinese Academy of Forestry, the Survey & Design Institute of the State Forestry Administration, Northeast Forestry University, and the Institute of Heilongjiang Forestry and Research. Partnership with these organizations should be further consolidated.
		Some partnerships in place but significant gaps and existing partnerships achieve little;	1		
		Many partnerships in place with a wide range of agencies, NGOs etc, but there are some gaps, partnerships are not always effective and do not always enable efficient achievement of objectives;	2		
		Protected area institutions establish effective partnerships with other agencies and institutions, including provincial and local governments, NGO's and the private sector to enable achievement of objectives in an efficient and effective manner	3		
24. Individuals carry appropriate values, integrity and	Individuals carry negative attitude;	0	2	Most staff of nature reserve embodies the core values of Daxing'anling Landscape Spirits with their actions—Diligence, Innovation, Practicality, and Dedication.	
	Some individuals have notion of appropriate attitudes and display integrity, but most don't;	1			

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
	attitudes	Many individuals carry appropriate values and integrity, but not all;	2		
		Individuals carry appropriate values, integrity and attitudes	3		
4. Capacity to mobilize information and knowledge	25. Protected area institutions have the information they need to develop and monitor strategies and action plans for the management of the protected area system	Information is virtually lacking;	0	1	Data and information about the targeted species and local economic & community development are not actually available through survey and monitoring due to competence and financial constraints, which further hampers sound PA management and relevant decision-making.
		Some information exists, but is of poor quality, is of limited usefulness, or is very difficult to access;	1		
		Much information is easily available and mostly of good quality, but there remain some gaps in quality, coverage and availability;	2		
		Protected area institutions have the information they need to develop and monitor strategies and action plans for the management of the protected area system	3		
	26. Protected area institutions have the information needed to do their work	Information is virtually lacking;	0	1	Same as above.
		Some information exists, but is of poor quality and of limited usefulness and difficult to access;	1		
		Much information is readily available, mostly of good quality, but there remain some gaps both in quality and quantity;	2		
		Adequate quantities of high quality up to date information for protected area planning, management and monitoring is widely and easily available	3		
	27. Individuals working with protected areas work effectively together as a team	Individuals work in isolation and don't interact;	0	2	Individuals interact frequently and work as a team. This is not always effective or productive as expected due to the disparity of different individuals in skills and knowledge.
		Individuals interact in limited way and sometimes in teams but this is rarely effective and functional;	1		
		Individuals interact regularly and form teams, but this is not always fully effective or functional;	2		
		Individuals interact effectively and form functional teams	3		
5. Capacity to monitor, evaluate, report and learn	28. Protected area policy is continually reviewed and updated	There is no policy or it is old and not reviewed regularly;	0	1	Regulations on Nature Reserves Conservation of The People's Republic of China were issued in September, 1994 and Heilongjiang Nature Reserve Management Regulations was issued in 1996. They have not been updated and revised since then. Both regulations need to be improved in accordance with new demands under current context.
		Policy is only reviewed at irregular intervals;	1		
		Policy is reviewed regularly but not annually;	2		
		National protected areas policy is reviewed annually	3		
	29. Society monitors the state of protected areas	There is no dialogue at all;	0	1	Existing dialogue is only restricted to specialized circles and not open to public.
		There is some dialogue going on, but not in the wider public and restricted to specialized circles;	1		
		There is a reasonably open public dialogue going on but certain issues remain taboo;	2		
		There is an open and transparent public dialogue about the state of the protected areas	3		
	30. Institutions are	Institutions resist change;	0	2	Both the governmental and protected area institutions are

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
	highly adaptive, responding effectively and immediately to change	Institutions do change but only very slowly;	1		adaptive, responding effectively and immediately to change, but still lack enough financial support.
		Institutions tend to adapt in response to change but not always very effectively or with some delay;	2		
		Institutions are highly adaptive, responding effectively and immediately to change	3		
	31. Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning	There are no mechanisms for monitoring, evaluation, reporting or learning;	0	2	Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning but rarely put into practice. Due the lack of skills and capital, some monitoring and evaluations of key biodiversity are not fully implemented. There is an urgent demand for communication and transportation facilities, fire monitoring and prevention equipment, capacity training, and budget.
		There are some mechanisms for monitoring, evaluation, reporting and learning but they are limited and weak;	1		
		Reasonable mechanisms for monitoring, evaluation, reporting and learning are in place but are not as strong or comprehensive as they could be;	2		
		Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning	3		
	32. Individuals are adaptive and continue to learn	There is no measurement of performance or adaptive feedback;	0	2	The institutions developed employee evaluation mechanism but not perfect and in detail. PA staff is actively improving their management skills and professional knowledge. They still need high quality training to further enhance their skills and knowledge.
		Performance is irregularly and poorly measured and there is little use of feedback;	1		
		There is significant measurement of performance and some feedback but this is not as thorough or comprehensive as it might be;	2		
		Performance is effectively measured and adaptive feedback utilized	3		
TOTAL SCORE			96	47	
				49%	

UNDP Capacity Scorecard (MSL Programme)

Daxing'anling Project-Inner Mongolia Forestry Management Authority (IMFMA)

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
1. Capacity to conceptualize and formulate policies, legislations, strategies and programmes	1. The protected area agenda is being effectively championed / driven forward	There is essentially no protected area agenda;	0	2	The paramount task of the Wildlife Management Bureau (WMB) with Inner Mongolia Daxing'anling Forestry Management Authority was to develop Master Plan for Wildlife Conservation and Nature Reserve Development in Daxing'anling Landscape of Inner Mongolia (2004-2020) since its establishment in 2003.Later on, WMB in Inner Mongolia formulated Wetland Conservation Plan in Daxing'anling Landscape in Inner Mongolia in 2006.Accordingly, each PA (including nature reserves and wetland parks) also developed their own master plans to set their conservation objectively. However, these plans are scarcely implemented due to budget limitation and weak strength in research.
		There are some persons or institutions actively pursuing a protected area agenda but they have little effect or influence;	1		
		There are a number of protected area champions that drive the protected area agenda, but more is needed;	2		
		There are an adequate number of able "champions" and "leaders" effectively driving forwards a protected area agenda	3		
	2. There is a strong and clear legal mandate for the establishment and management of protected areas	There is no legal framework for protected areas;	0	1	
		There is a partial legal framework for protected areas but it has many inadequacies;	1		
		There is a reasonable legal framework for protected areas but it has a few weaknesses and gaps;	2		
		There is a strong and clear legal mandate for the establishment and management of protected areas	3		
	3. There is an institution or institutions responsible for protected areas able to strategize and plan.	Protected area institutions have no plans or strategies;	0	2	
		Protected area institutions do have strategies and plans, but these are old and no longer up to date or were prepared in a totally top-down fashion;	1		
		Protected area institutions have some sort of mechanism to update their strategies and plans, but this is irregular or is done in a largely top-down fashion without proper consultation;	2		
		Protected area institutions have relevant, participatorially prepared, regularly updated strategies and plans	3		
2. Capacity to	4. There are	There is a general lack of planning and management skills;	0	1	Lack of professional background, fundamental skills, and

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
implement policies, legislation, strategies and programmes	adequate skills for protected area planning and management	Some skills exist but in largely insufficient quantities to guarantee effective planning and management;	1		managerial competencies as well as training opportunities characterize the whole work force of PAs in the region.
		Necessary skills for effective protected area management and planning do exist but are stretched and not easily available;	2		
		Adequate quantities of the full range of skills necessary for effective protected area planning and management are easily available	3		
	5. There are protected area systems	No or very few protected area exist and they cover only a small portion of the habitats and ecosystems;	0	2	The current PA system encompassing 2 national-level PAs, 6 provincial-level PAs, 4 local NRs, and 2 wetland parks covers a total of 1.52 million ha lands under protection, which could safeguard key ecosystems and rare wildlife in the region.
		Protected area system is patchy both in number and geographical coverage and has many gaps in terms of representativeness;	1		
		Protected area system is covering a reasonably representative sample of the major habitats and ecosystems, but still presents some gaps and not all elements are of viable size;	2		
		The protected areas includes viable representative examples of all the major habitats and ecosystems of appropriate geographical scale	3		
	6. There is a fully transparent oversight authority (there are fully transparent oversight authorities) for the protected areas institutions	There is no oversight at all of protected area institutions;	0	1	Among 14 PAs within the Daxing'anling Landscape within the geographical boundary of Inner Mongolia, 2 national-level nature reserves are directly administrated by WMB and the other 12 PAs are under the governance of local forestry bureaus. Due to inadequate concerns, current monitoring only confines to budget. There exists no comprehensive accountability mechanism. The relevant governmental agencies set a lower expectation of conservation efforts.
		There is some oversight, but only indirectly and in a non-transparent manner;	1		
		There is a reasonable oversight mechanism in place providing for regular review but lacks in transparency (e.g. is not independent, or is internalized) ;	2		
		There is a fully transparent oversight authority for the protected areas institutions	3		
	7. Protected area institutions are effectively led	Protected area institutions have a total lack of leadership;	0	1	In terms of national-level nature reserves, their well-structured management authorities can ensure them to fulfill their functions smoothly. As for sub-national PAs, their management authorities have limited capacities for making decision, which further hampers the management effectiveness of these PAs.
		Protected area institutions exist but leadership is weak and provides little guidance;	1		
		Some protected area institutions have reasonably strong leadership but there is still need for improvement;	2		
Protected area institutions are effectively led		3			
8. Protected areas have regularly updated, participatorially prepared, comprehensive management plans	Protected areas have no management plans;	0	0	All PAs in the region have not developed detailed management plans at all. Now, these PAs are managed based on Master Plans (that were developed when establishing the PA) and annual work plans.	
	Some protected areas have up-to-date management plans but they are typically not comprehensive and were not participatorially prepared;	1			
	Most Protected Areas have management plans though some are old, not participatorially prepared or are less than comprehensive;	2			
	Every protected area has a regularly updated, participatorially prepared, comprehensive management plan	3			
9. Human resources	Human resources are poorly qualified and unmotivated;	0	1	All employees of PAs were shifted from forestry bureaus	

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
	are well qualified and motivated	Human resources qualification is spotty, with some well qualified, but many only poorly and in general unmotivated;	1		internally. Their education level is relatively low and they generally have no conservation background. What's worse is that they did not obtain prompt training after recruitment. In addition, PAs locate in remote areas that are underdeveloped, which increases the difficulty attracting talents with a higher degree. Lastly, lack of relevant incentive mechanism fundamentally restricts the development of these PAs.
		HR in general reasonably qualified, but many lack in motivation, or those that are motivated are not sufficiently qualified;	2		
		Human resources are well qualified and motivated.	3		
	10. Management plans are implemented in a timely manner effectively achieving their objectives	There is very little implementation of management plans;	0	0	No management plans are requested to be developed according to applicable policies and regulations or bylaws.
		Management plans are poorly implemented and their objectives are rarely met;	1		
		Management plans are usually implemented in a timely manner, though delays typically occur and some objectives are not met;	2		
		Management plans are implemented in a timely manner effectively achieving their objectives	3		
	11. Protected area institutions are able to adequately mobilize sufficient quantity of funding, human and material resources to effectively implement their mandate	Protected area institutions typically are severely underfunded and have no capacity to mobilize sufficient resources;	0	1	Both national and local governmental agencies have not invested in PAs under the jurisdiction of forestry management authority in the region. As a result, these PAs can only apply for project grants to maintain their operations. Most PAs in the region failed to obtain any grant from central government due to their relatively lower conservation level. As for national-level PAs, their funds are budgetary appropriation under the IMFMA that covers employee salary and fringes as well as operational budget. However, the available budget for national-level PAs can merely allow PAs to fulfill their basic responsibilities, e.g., maintain daily operation and routine patrolling.
		Protected area institutions have some funding and are able to mobilize some human and material resources but not enough to effectively implement their mandate;	1		
		Protected area institutions have reasonable capacity to mobilize funding or other resources but not always in sufficient quantities for fully effective implementation of their mandate;	2		
		Protected area institutions are able to adequately mobilize sufficient quantity of funding, human and material resources to effectively implement their mandate	3		
	12. Protected area institutions are effectively managed, efficiently deploying their human, financial and other resources to the best effect	While the protected area institution exists it has no management;	0	1	National-level PAs in the region have established independent management authorities to supervise PAs while sub-national PAs are usually managed by corresponding forestry bureaus, which results in limited resources mobilized for the management of PAs. Work plans are frequently under implemented due to limited abilities of staff. The dominant conservation efforts are to prevent fire and control outsiders' access to PAs.
		Institutional management is largely ineffective and does not deploy efficiently the resources at its disposal;	1		
		The institution(s) is (are) reasonably managed, but not always in a fully effective manner and at times does not deploy its resources in the most efficient way;	2		
		The protected area institution is effectively managed, efficiently deploying its human, financial and other resources to the best effect	3		
	13. Protected area institutions are	Protected area institutions totally untransparent, not being held accountable and not audited;	0	1	Only two national-level nature reserves have adopted periodic auditing and accountability mechanisms. As for

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
	highly transparent, fully audited, and publicly accountable	Protected area institutions are not transparent but are occasionally audited without being held publicly accountable;	1		other PAs, their management authorities cannot operate well and their staff's responsibilities are weak.
		Protected area institutions are regularly audited and there is a fair degree of public accountability but the system is not fully transparent;	2		
		The Protected area institutions are highly transparent, fully audited, and publicly accountable	3		
	14. There are legally designated protected area institutions with the authority to carry out their mandate	There is no lead institution or agency with a clear mandate or responsibility for protected areas;	0	2	As mentioned above, PAs in the region are managed by different agencies within their assignment. None of the PA management authorities have law enforcement power, which negatively influences the execution of their responsibilities.
		There are one or more institutions or agencies dealing with protected areas but roles and responsibilities are unclear and there are gaps and overlaps in the arrangements;	1		
		There are one or more institutions or agencies dealing with protected areas, the responsibilities of each are fairly clearly defined, but there are still some gaps and overlaps;	2		
		Protected Area institutions have clear legal and institutional mandates and the necessary authority to carry this out	3		
	15. Protected areas are effectively protected	No enforcement of regulations is taking place;	0	2	To overcome the problem mentioned above, PAs management authorities at different scales jointly work together with forestry police department to overcome the constraint. By doing so, external pressure can be effectively abated in that PAs in the region lie in the remote areas with low density of population.
		Some enforcement of regulations but largely ineffective and external threats remain active;	1		
		Protected area regulations are regularly enforced but are not fully effective and external threats are reduced but not eliminated;	2		
		Protected Area regulations are highly effectively enforced and all external threats are negated	3		
	16. Individuals are able to advance and develop professionally	No career tracks are developed and no training opportunities are provided;	0	1	No training plan developed and limited training opportunities available (even so, only PA managers got trained).
		Career tracks are weak and training possibilities are few and not managed transparently;	1		
		Clear career tracks developed and training available; HR management however has inadequate performance measurement system;	2		
		Individuals are able to advance and develop professionally	3		
	17. Individuals are appropriately skilled for their jobs	Skills of individuals do not match job requirements;	0	1	Most staff of PAs in the region grasps the basic skills and knowledge relating forest resources management, nature reserve management and fire prevention and monitoring, which cannot meet the management demands of these PAs in the long run.
		Individuals have some or poor skills for their jobs;	1		
		Individuals are reasonably skilled but could further improve for optimum match with job requirement;	2		
		Individuals are appropriately skilled for their jobs	3		
	18. Individuals are highly motivated	No motivation at all;	0	1	There are sort of incentive mechanisms that are characterized by non-transparency and inequality.
		Motivation uneven, some are but most are not;	1		
		Many individuals are motivated but not all;	2		
		Individuals are highly motivated	3		
	19. There are	No mechanisms exist;	0	1	There is some ad hoc training that helps to improve

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
	appropriate systems of training, mentoring, and learning in place to maintain a continuous flow of new staff	Some mechanisms exist but unable to develop enough and unable to provide the full range of skills needed;	1		staff's competencies to some extent. The lack of systematic and comprehensive training hinders these PAS to remove the constraint resulting from low competency of employees at large.
		Mechanisms generally exist to develop skilled professionals, but either not enough of them or unable to cover the full range of skills required;	2		
		There are mechanisms for developing adequate numbers of the full range of highly skilled protected area professionals	3		
3. Capacity to engage and build consensus among all stakeholders	20. Protected areas have the political commitment they require	There is no political will at all, or worse, the prevailing political will runs counter to the interests of protected areas;	0	1	PA practitioners have appropriate political wills to fulfill their responsibilities. However, when there exist conflicts between PA conservation and local economic development (e.g., mining and other high return development activities), PA managers will face strong pressure from local governments due to relatively weak legal framework in place
		Some political will exists, but is not strong enough to make a difference;	1		
		Reasonable political will exists, but is not always strong enough to fully support protected areas;	2		
		There are very high levels of political will to support protected areas	3		
	21. Protected areas have the public support they require	The public has little interest in protected areas and there is no significant lobby for protected areas;	0	1	Local communities in the region strongly support the establishment of PAs and have a good knowledge of the significance of protecting ecological environment. Despite of this, they have low interest in involving decision-making process of PA management.
		There is limited support for protected areas;	1		
		There is general public support for protected areas and there are various lobby groups such as environmental NGO's strongly pushing them;	2		
		There is tremendous public support in the country for protected areas	3		
	22. Protected area institutions are mission oriented	Institutional mission not defined;	0	2	PAs have clearly defined their responsibilities and accountabilities. Due to limited promotion, the public does not know this too well.
		Institutional mission poorly defined and generally not known and internalized at all levels;	1		
		Institutional mission well defined and internalized but not fully embraced;	2		
		Institutional missions are fully internalized and embraced	3		
	23. Protected area institutions can establish the partnerships needed to achieve their objectives	Protected area institutions operate in isolation;	0	1	Two national-level nature reserves and some provincial nature reserves can receive comparatively adequate budget. These PAs have conducted a lot of cooperation in tourism, research and other fields of PA management. There is still a lot of space for future improvement.
		Some partnerships in place but significant gaps and existing partnerships achieve little;	1		
		Many partnerships in place with a wide range of agencies, NGOs etc, but there are some gaps, partnerships are not always effective and do not always enable efficient achievement of objectives;	2		
		Protected area institutions establish effective partnerships with other agencies and institutions, including provincial and local governments, NGO's and the private sector to enable achievement of objectives in an efficient and effective manner	3		
24. Individuals carry appropriate values, integrity and attitudes	Individuals carry negative attitude;	0	2	With the implementation of National Wildlife Conservation and Nature Reserve Development Project and Natural Forest Conservation Project, the awareness of staff of PA management agencies as well as local	
	Some individuals have notion of appropriate attitudes and display integrity, but most don't;	1			
	Many individuals carry appropriate values and integrity, but not all;	2			

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
		Individuals carry appropriate values, integrity and attitudes	3		communities on ecological conservation has significantly improved although a few of PA staff still execute their responsibilities fully.
4. Capacity to mobilize information and knowledge	25. Protected area institutions have the information they need to develop and monitor strategies and action plans for the management of the protected area system	Information is virtually lacking;	0	1	All relevant information is obtained from planning and design agencies in the region. The information contributes little to making decisions for the reason that the info/data are out-of-date and cannot be updated in a timely fashion due to budget and capacity limitation.
		Some information exists, but is of poor quality, is of limited usefulness, or is very difficult to access;	1		
		Much information is easily available and mostly of good quality, but there remain some gaps in quality, coverage and availability;	2		
		Protected area institutions have the information they need to develop and monitor strategies and action plans for the management of the protected area system	3		
	26. Protected area institutions have the information needed to do their work	Information is virtually lacking;	0	1	Same as above.
		Some information exists, but is of poor quality and of limited usefulness and difficult to access;	1		
		Much information is readily available, mostly of good quality, but there remain some gaps both in quality and quantity;	2		
		Adequate quantities of high quality up to date information for protected area planning, management and monitoring is widely and easily available	3		
	27. Individuals working with protected areas work effectively together as a team	Individuals work in isolation and don't interact;	0	2	Employee members collaborate with each other to achieve a concerted assignment/task. However, the team work performance is far from satisfactory due to lack of efficient coordination and communication and disparate competency of different team members.
		Individuals interact in limited way and sometimes in teams but this is rarely effective and functional;	1		
		Individuals interact regularly and form teams, but this is not always fully effective or functional;	2		
		Individuals interact effectively and form functional teams	3		
5. Capacity to monitor, evaluate, report and learn	28. Protected area policy is continually reviewed and updated	There is no policy or it is old and not reviewed regularly;	0	1	National-level PAs obtain special attention from IMFMA by enacting specific policies to secure a better budgetary, staffing and infrastructure investment.
		Policy is only reviewed at irregular intervals;	1		
		Policy is reviewed regularly but not annually;	2		
		National protected areas policy is reviewed annually	3		
	29. Society monitors the state of protected areas	There is no dialogue at all;	0	1	There are no permanent residents within the boundary of PAs in the region, although there are visitors.. The current society monitoring only concerns forestry agencies since majority residents surrounding PAs are forestry workers.
		There is some dialogue going on, but not in the wider public and restricted to specialized circles;	1		
		There is a reasonably open public dialogue going on but certain issues remain taboo;	2		
		There is an open and transparent public dialogue about the state of the protected areas	3		
	30. Institutions are highly adaptive,	Institutions resist change;	0	2	IMFMA highly concerns the management and development of PAs in the region and gets their hands on
		Institutions do change but only very slowly;	1		

Strategic Area of Support	Issue	Outcome Indicators	Score:		Evaluative Comments
	responding effectively and immediately to change	Institutions tend to adapt in response to change but not always very effectively or with some delay;	2		solving some problems that hinder the effective management of PAs, e.g., lack of budget, unsound institutional structure, and shortage of professional staff. Their support should be strengthened in the future.
		Institutions are highly adaptive, responding effectively and immediately to change	3		
	31. Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning	There are no mechanisms for monitoring, evaluation, reporting or learning;	0	1	PAs developed some monitoring, evaluating, reporting and learning work plan to guide their daily activities. However, these plans cannot be implemented well due to lack of financial and legal support.
		There are some mechanisms for monitoring, evaluation, reporting and learning but they are limited and weak;	1		
		Reasonable mechanisms for monitoring, evaluation, reporting and learning are in place but are not as strong or comprehensive as they could be;	2		
		Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning	3		
	32. Individuals are adaptive and continue to learn	There is no measurement of performance or adaptive feedback;	0	1	PAs are mainly governed via administrative measures. Job responsibilities are linked with salary scale. There has no performance assessment mechanism focusing on employee individual at all.
		Performance is irregularly and poorly measured and there is little use of feedback;	1		
		There is significant measurement of performance and some feedback but this is not as thorough or comprehensive as it might be;	2		
		Performance is effectively measured and adaptive feedback utilized	3		
TOTAL SCORE			96	39	
				41%	

ANNEX 3. ECOSYSTEM HEALTH INDEX (NARRATIVE + ASSESSMENT RESULTS (BASELINES))

Brief Summary of the Ecosystem Health Index (EHI) Methodology

Definition: Ecosystem Health is taken to be the suitability of a site to continue to provide secure conditions for survival of component species and delivery of key ecological services, including resilience to climate and other changes.

Objective: EHI is not an evaluation. It is a dynamic, constantly varying index that reflects biodiversity health, just as a financial index reflects economic performance.

- EHI provides a baseline against which targets for maintaining or achieving a given level of health can be set
- EHI can be used as a results based indicator of project achievement and impacts
- EHI can indicate where the project is succeeding or failing and allow revision of activity efforts throughout the project
- EHI is complimentary to the Management Effectiveness Tracking Tool (METT) in project monitoring and evaluation.

Introduction: Ecosystem health is reflected in the ability of a site to maintain its biodiversity values and ecological functions. These will vary significantly from site to site. The index developed to assess this health has three components: 1) score of habitat suitability for maintaining important biodiversity; 2) status of that biodiversity and 3) the broader environmental context. The score does not necessarily indicate stability. Many wetland sites are very dynamic but what we are interested in is the ability of the biota to adapt to or even thrive with the changes. This will become increasingly important as climate and water flow patterns change. A simple scoring system is recommended to give the results transparency and robustness. Each site using this index should undertake a baseline survey which also selects indicators and target species for subsequent surveys. Indicators should include key wetland birds, important aquatic fauna – fish, molluscs; selected indicator insects; endangered mammals; major components of vegetation; incidence of AIS.

The index establishes a snapshot value at the time of surveying; can relate present scores against baselines established at an earlier date, identifying trends in the different indicators; and can establish reasonable targets for improvement for each different indicator, and compare current state against identified targets.

Just as a human body may appear healthy in not yet showing much physical deterioration, we can identify several indicators of lifestyle that certainly constitute health threats (excessive drinking and smoking habits, lack of sleep, lack of inoculation, living in region of known diseases, poor hygienic habits, lack of medical facilities etc.). In the same way we can recognize several threats to ecosystem health in the external context that may not be immediately reflected in condition of habitat or status of species. Such indicators include the levels of external development threats, the level of secure legal protection enjoyed, and the level of human use pressures being applied or expected in the future.

Use of the EHI scoresheet

1. Forming the monitoring team

Should include manager, ecologist, consultant, local experts and if possible local community member/members)

2. Classifying and mapping main habitat types

The scoring of habitat sub-index requires assessing whether the extent, diversity, connectivity and condition of key habitats is maintained. For this it is necessary to classify, map, measure extent and

status of specific habitats. For ease of work and subsequent analysis it is recommended to use a simple hierarchical habitat classification. An example for Poyang Lake is given below but it is not important to follow any formal classification system and use of whatever classification is already used by management or researchers in the area is usually adequate. If no suitable classification is already in use, it is recommended to follow the classification system of wetlands international (see Asian Wetlands Inventory Handbook) for wetland types. For terrestrial vegetation, use classifications in current use at local level. Google maps can be downloaded from internet and provide basis for mapping different recognizable vegetation formations. These can then be compared with later imagery to monitor changes in distribution. Use of GIS is useful but not essential. Once mapped, the area of habitat types can be calculated by counting dots on transparent sheets. Retain maps and results for future comparisons.

Suggested habitat classification and hierarchy (example only; not comprehensive for China!)

Ist Order	2 nd Order	3 rd Order	4 th Order
Water bodies	Natural Fresh water	Lakes	Open Lake
			Shallows
			Small Lake
		Rivers	Large River
	Small River		
	Artificial	Ponds	Reservoir
Small Pond			
Terrestrial	Barren	Sparse vegetation	Beach
			Mudflats
		No natural vegetation	Bare Land
		Urban area	
	Arbour	Woodlands	Willows
			Poplar plantation
			Mixed plantations
			Natural mixed forest
	Herbaceous	Marshes	Scrub
			Scrub
		Grasslands	Reed-beds
			Lotus-beds
			Miscanthus meadow
			Phalaris meadow
			Carex meadow
			Artemisia meadow

3. Identify main threats to be monitored

- Key threats have already been identified for each project area at the PIF stage. These can be reviewed at PPG stage.
- Additional threats can be tagged for attention when local teams are assembled or if unpredicted changes occur during the project cycle. There should be a good match between indicator species selected and the specific threats they indicate.

4. Identifying suitable indicator species to be monitored

- Conservation target species (n.b. rarely seen species give little data)
- Commoner species that are sensitive to habitat quality – amphibia, dragonflies, birds
- Easily identified – large mammals
- Easily quantified (harvest levels of fish, crabs etc. or plants)
- Alien species of concern

5. Undertake baseline measurements

This will involve checking in the field, examining plans, maps and other documents, interviewing managers and local community members and undertaking status assessments of selected indicator species (this latter task should be incorporated into routine monitoring activities but baselines need to be established).

6. Calculate baseline indices

Pick the score for each indicator that best meets your observations. Most important is to complete the notes explaining on what basis this score was selected and listing the requirements that should be targeted by the project for improving this score. Identification of areas where improvement can be expected is the key to calculating the target index score that the project can realistically hope to achieve.

7. Periodically repeat measurements (minimum would be mid-term and end of project). Routine monitoring of indicator species should be more often than this and at least twice per year.

8. Analyze observed changes in relation to established targets

Note changes in relation to baseline or previous evaluations

9. Report results and feed into project planning revisions

Append full notes, maps, tables of scored species, or any data on human uses and activities, tourism entries etc. on which the answers were based. This is important as the next team to evaluate may be different and need to see the basis for determining if conditions change or get worse.

It is recommended that the first 6 steps will have expert assistance, but local teams can undertake subsequent monitoring and scoring.

The EHI scorecard

The EHI scorecard is designed for simplicity and robustness.

Different teams should reach similar scores. In our training exercises, robustness was tested. Five independent scorers reached almost identical scores for Dongzhaigang NNR (mangroves) in Daxing'anling and 6 different teams scored almost identical scores for Jiulongshan NNR (forest) in Hubei. Team members do not require high levels of literacy, biological knowledge or statistical skills!! The EHI scorecard is designed to match and augment the Management Effectiveness Tracking Tool (METT) being used in GEF Biodiversity projects and can be filled out at the same time.

At national level, SFA should monitor EHI scores of focal sites, other wetland sites within project provinces and a selection of sites not directly affected by the project as part of overall monitoring of conditions and programme impacts.

1. Duobuku'er National Nature Reserve

Name of Site: Duobukur		Wetland Ecosystem Health Index (EHI) Score Sheet		Scored by (names): Ren Tao	Date completed: Jul. 31, 2012
Issue	Criteria	Score: tick only one box per question		Comment/explanation	Target to improve?
Component 1. Habitat Health Assessment					
Habitat connectivity	Habitats severely fragmented by inhospitable barriers	0		Land reclamation within and surrounding encroaches the site and makes the site fragmented. Approximate 30% of the site is under agriculture, which is the dominant source of habitat fragmentation here.	To restore the wetland skirting around the site to reestablish the wetland network by converting agricultural lands into forest lands, and explore new wetland restoration to enhance wetland rehabilitation naturally and manually.
	Habitats fragmented but some connections or corridors remain	1			
	Habitats partly fragmented	2	2		
	Habitats enjoy good connectivity	3			
Habitat heterogeneity	Site composed of only one major habitat	0		Wetland coverage, types and uniqueness have been degraded. Wetland rehabilitation in the 1980s failed due to combined reasons, in particular technical reasons.	To tap new methods of wetland restoration to facilitate wetland resilience naturally and manually.
	Site contains only a small proportion of full range of regional wetland habitats	1	1		
	Site contains most of regional representative habitats	2			
	Site contains mosaic of all representative habitats of regional wetland type	3			
Original habitat diversity retained	Range of original habitats severely reduced by habitat losses and changes	0		Approximate 27% of original habitats have been disturbed and destroyed and about 73% natural lands (94140 ha) are retained well.	To reduce human-induced activities and expand patrolling efforts to prevent potential artificial destructive activities.
	50-80% of original habitats still well represented	1	1		
	>80% of original habitats still well represented	2			
	Full range of original habitats all well represented	3			
Habitats degraded	Most habitats severely degraded in structure, composition or productivity	0		The site is degraded from previous timber logging and has not restored to its natural status yet.	To conserve and restore wetland resources by banning timber logging.
	Some habitats severely degraded	1	1		
	Minor habitat degradation	2			
	All habitats in healthy natural condition	3			
Water pollution	Water toxic causing death of fish, mollusks and other biota, presence of toxic algae or plankton	0		The site is contaminated by domestic sewage and industrial discharge from the upstream of the catchment in Songling District resulting from timber processing and mining. In addition, runoff of agricultural pesticides also poisons the river.	To stop pollution by promoting water treatment plants in Songling Town and promote the utilization of environmentally friendly fertilizer and farming methods.
	Water visibly dirty or smelly, surface scum visible	1			
	Slight discoloration, smell or cloudiness apparent	2	2		
	Water remains clear and potable	3			
Sediment load	Water seriously loaded with erosion sediments	0		The riverbanks are comparatively loose due to	To keep the habitats as natural as possible by

	Water opaque, cannot see bottom of ponds, streams	1	1	influences of sand mining in the site and are subjective to erosion from the power of streaming water.	banning sand mining to reduce sediment load while strengthening law enforcement.
	Water fairly clear but contains significant sediment	2			
	Sediment levels entirely normal	3			
Oxygen levels	Severe hypoxia kills fish and mollusks	0		Due to dense canopy coverage the low oxygen level of the site is close to their natural level.	To replant native tree species along riparian areas with sparse trees to increase oxygen levels.
	Some signs of hypoxia, fish gulping at surface	1			
	Oxygen levels close to natural original figures	2	2+		
	Oxygen levels remain at natural healthy levels	3			
Water supply	Water supply and water table seriously modified and damaging ecological functions	0		Water supply is changing due to rising temperature as well as sand mining practices surrounding the site.	To actively conduct remedial measures to control or mitigate climate change through reducing gas emission, banning sand mining and dredging blocked river courses.
	Water supply modified by major diversions, drainage or extractions	1			
	Water supply peaks (droughts and floods) exaggerated by regional changes in flow	2	2		
	Water supply remains in original seasonal pattern	3			
Physical disturbance (construction, fish traps, barrages, noisy activity)	Site is transformed by artificial developments, structures or disturbances	0		Historic agricultural reclamation, residential house and tourist facilities construction impacted parts of the site.	To reduce artificial facilities in the site by taking appropriate management measures.
	Site faces much disturbance from construction and disturbance	1			
	Minor structures or disturbances only	2	2		
	Original physical state preserved	3			
Disaster damage	Ecology irreversibly modified by natural or artificial disaster	0		Insects and disease outbreak and fires place the site under threat.	To enhance natural ecological resilience by improving the capacities for preventing disasters, and establish joint law enforcement by mobilizing local communities to prevent illegal reclamation practices by cutting forests.
	Serious disasters frequent and ecological recovery period long	1			
	Severity and frequency of disasters increased through human activities but ecology shows high recovery rate	2	2		
	Frequency of disasters remains natural, capacity to recover remains high	3			
Design resilience (size,altitude,NS axis,lithology,dynamics,multiple catchments)	Site is too small, isolated and homogeneous to offer ecological resilience	0		The site is highly homogenous after a boundary adjustment. Historic agricultural reclamation further contributes to habitat fragmentation of the site. The site has a weaker resilience and it takes a long time to recover once being destroyed.	To develop management plan to guide converting agricultural lands to forests or wetlands.
	Site is naturally vulnerable to change	1	1		
	Site enjoys moderate resilience design	2			
	Site enjoys natural high resilience	3			
Sub-total of habitat health risks		Sum score	17(+)	% of total maximum 51.5%	Index (HI) =0.515
Component 2. Species Health Assessment					
Health of target	All target species show declines	0		Monitoring results indicates that target species	To strengthen conservation to reverse the

species	Most target species show declines	1		generally declines slightly.	declining trend, including develop specific conservation action plans.
	Some target species show declines	2	2		
	All target species stable or increasing	3			
Health of vertebrate indicator species	All indicator species show declines	0		Same as above.	Same as above.
	Most indicator species show declines	1			
	Some indicator species show declines	2	2		
	All indicator species stable or increasing	3			
Health of plant indicator species	All indicator species show declines	0		Species generally declines due to unsustainable harvest.	To sustainably utilize non-timber forest products by identifying harvest limitation and harvest areas and developing harvest management measures.
	Most indicator species show declines	1			
	Some indicator species show declines	2	2		
	All indicator species stable or increasing	3			
Health of invertebrate indicator species	All indicator species show declines	0		Some species generally declines slightly according to Grade II (fine scale) resources survey results, e.g., dragonflies.	To enhance wetland conservation and establish monitoring network.
	Most indicator species show declines	1			
	Some indicator species show declines	2	2		
	All indicator species stable or increasing	3			
Species diversity retained	Richness of faunal/floral communities irreversibly depleted	0		Species generally declines due to illegal hunting and catch, e.g., roe deer, hazel grouse and Qinling lenok.	To strengthen conservation efforts, supply rangers with necessary patrolling equipment and strictly manage access to the site.
	Significant gaps appearing in reporting of local species	1			
	Minor reductions in species richness noticed	2	2		
	Site retains full original species diversity with high proportion of locally potential species	3			
Highest trophic carnivores still present	No high trophic carnivores remain at site	0		Carnivorous mammals decline due to poaching, poor law enforcement and patrolling equipment insufficient.	To strengthen law enforcement by better equipping of the rangers, in particular on poaching while establish target species monitoring system.
	Few carnivores remain at site	1	1		
	Some high trophic carnivores lost from local fauna	2			
	All high trophic carnivores or original fauna still presnet	3			
AIS resilience	AIS out of control and permanently replacing some local species	0		AIS introduced to the site when afforesting in 1980-90s, e.g. <i>Larix olgensis</i> .	To ban introduction of alien species for afforestation, enhance the capacities for identifying AIS, and establish an emergency response plan.
	AIS degrading ecosystem functions or displacing local species	1			
	Some AIS noticed at site but not seriously damaging ecosystem or local species	2	2		
	No AIS established in site	3			
Breeding/wintering success of target species	High mortality on wintering/breeding areas of site	0		Most target species can breed and survive well in summer and/or winter.	To expand conservation efforts to further improve their viability by competing for more funds, supplying more food in winter by restoring habitats, and increasing
	Survival of some species a concern	1	1		
	Moderate survival	2			
	Key species all surviving well at site	3			

					conservation awareness through promoting environmental education.
Key new species using site	Total species no. dropping over time	0		No new species recorded.	To expand conservation efforts and strengthen monitoring efforts.
	No new species recorded but species richness stable	1	1		
	Some new species (other than AIS) noted	2			
	No. of new colonizing species exceed local extinctions	3			
Economic harvest species (legal and illegal)	Uncontrolled overharvesting eliminating some species	0		Abundance of concerned species declines due to non-timber forest collection as well as fish catch.	To regulate specific resources management measures to ensure sustainable resource exploitation.
	Harvesting results in serious declines in several species	1	1		
	Harvesting results in minor declines of some species	2			
	No harvesting, or harvesting appears entirely sustainable	3			
Mortality/disaster of key species (fires, droughts, floods, diseases)	Disasters have caused irreversible or long term declines to important species	0		Natural disasters are not frequent. Forest fire and insect as well as disease are the top two disasters to the site, which would destroy the site seriously.	To improve disaster prevention capacity and emergency response capacity, as well as to establish early warning mechanism.
	Disasters have caused serious damage to important species	1	1		
	Disasters cause minor damage to some species	2			
	No diseases, disasters in recent years or species recovery fast and complete	3			
Sub-total of species health risks		Sum score	17	% of total maximum 51.5 %	Index (SI) = 0.515
Component 3. Environmental Context Health Assessment					
Site boundaries and zones	Adequate boundaries not clearly marked or respected	0		The site is to adjust its boundary and zoning classification. They have submitted their adjustment plan to relevant government for review and approval. There is a lack of boundary markers/pillars at some areas.	To set up warning signs and promotion boards and to adjust its boundary once their proposal gets approved.
	Boundaries inadequate or not respected	1			
	Some boundaries marked, partially respected	2	2		
	Effective boundaries, zones in place and marked	3			
Legal framework	No legal protection for site	0		The site is exposed to the drawbacks of Regulations on Nature Reserve Conservation in China. In addition, the site straddles different administrative areas with applicable regulations and laws that are not consistent to each other well.	To enact site-specific regulations to provide a stronger legal security for the site.
	Weak legal protection or protection for only part of site	1	1		
	Legal status assured but some weaknesses remaining	2			
	Strong legal security and law enforcement procedures in place	3			
Tourism impacts	Tourism uncontrolled and causing serious damage and disturbance to site	0		Tourism in the site is only open in summer. Tourism-affiliated pollution, including domestic garbage, wastes, waste water and construction waste, negatively influences the site.	To further regulate tourism management to minimize negative impacts resulting from tourism.
	Some controls in place but tourism exceeds safe carrying capacity	1			

	Tourism controlled but causing some negative impacts	2	2		
	Tourism absent or well controlled and within safe limits	3			
Human resource use pressures	Pressure on natural resources of site out of control	0		The site is confronting with increasing pressures from intensive exploitation of non-timber forest products and agricultural reclamation due to logging ban.	To regulate non-timber forest products management measures, control access to the site by applying permit system, and identify the coverage of current agricultural lands by household to prevent any further forest conversion activities.
	High levels of collection or use of renewable resources	1	1		
	Low levels of pressure for resources or land-use (e.g. grazing)	2			
	No human pressure on resources, or pressures now contained by alternative livelihood program	3			
Additional threats or stresses from external developments (existing or planned)	Water diversion plans, dams, drainage would completely change nature of the site	0		The varied development and construction activities in the upstream of Doubukur impose potential threats to ecosystem in the site, including timber processing, mineral mining, and sand mining.	To actively coordinate with relevant governmental agencies to strictly manage various development activities to minimize negative impacts. As for existing construction activities with serious threats, the reserve will propose relevant government to close them down.
	External developments negatively affect the ecosystem of site	1	1		
	Low risk or low impacts can be absorbed by ecosystem	2			
	No threats from external developments	3			
Local community relations	Local community alienated and oppose establishment of protected area on site	0		No local communities within the site, although XXX farmers visit the site in the growing season There are some government agencies surrounding the site.	To further consolidate cooperation with relevant stakeholders to conserve the site jointly.
	Local community accept existence of protected area but neutral and mostly not involved	1			
	Local community enjoy some benefits through employment or alternative livelihoods	2	2		
	Local communities strongly supportive; respect protected area and collaborate in protection, reporting work	3			
Sub-total of environmental context health risks		Sum score	9	% of total maximum 50%	Index (CI) = 0.50
Overall EHI score (HI+SI+CI)/3 = (0.515+0.515+0.5)/3=0.51				Target identified for project	Index (CI) = 0.55

2. Genheyuan National Wetland Park

Name of Site: Inner Mongolia Genheyuan National Wetland Park		Wetland Ecosystem Health Index (EHI) Score sheet		Scored by (names): Wang Liancheng, Cui Guanghong		Date completed: Sep. 12, 2012	
Issue	Criteria	Score: tick only one box per question		Comment/explanation	Target to improve?		
Component 1. Habitat Health Assessment							
Habitat connectivity	Habitats severely fragmented by inhospitable barriers	0		Although the site is internally divided by roads and bridges, its integrity is still comparatively high and it is an integral patch of the whole forestlands. No dams or weirs are constructed within the site.	To continue to maintain the current status while restoring water flows underneath roads.		
	Habitats fragmented but some connections or corridors remain	1					
	Habitats partly fragmented	2	2				
	Habitats enjoy good connectivity	3					
Habitat heterogeneity	Site composed of only one major habitat	0		Straddling on the western slope of the Daxing'anling landscape, the site includes the majority of habitats distributed in the region.	To retain current conservation efforts and strengthen collaboration with local NRs to mutually conserve wetlands and forests in the region.		
	Site contains only a small proportion of full range of regional wetland habitats	1					
	Site contains most of regional representative habitats	2	2				
	Site contains mosaic of all representative habitats of regional wetland type	3					
Original habitat diversity retained	Range of original habitats severely reduced by habitat losses and changes	0		Although the site was harvested for timber for more than 60 years, all resource exploitation was conducted by strictly complying with applicable forest management standards. Therefore, the original habitats still remain.	To reduce timber harvest and fishing catch, ban hunting and restore environment gradually.		
	50-80% of original habitats still well represented	1					
	>80% of original habitats still well represented	2	2				
	Full range of original habitats all well represented	3					
Habitats degraded	Most habitats severely degraded in structure, composition or productivity	0		The site is slightly degraded due to historic timber harvest, soil removal, poaching, and fire.	To reduce timber harvest, ban hunting, converting forests into agricultural lands with fire, thin trees to restore degraded environment step by step.		
	Some habitats severely degraded	1					
	Minor habitat degradation	2	2				
	All habitats in healthy natural condition	3					
Water pollution	Water toxic causing death of fish, molluscs and other biota, presence of toxic algae or plankton	0		The water quality reaches the Grade-I category as defined by Water Quality Classification Standard in China.	To prevent the river from contamination and pollution from tourism.		
	Water visibly dirty or smelly, surface scum visible	1					
	Slight discoloration, smell or cloudiness apparent	2					
	Water remains clear and potable	3	3				

Sediment load	Water seriously loaded with erosion sediments	0		The water is clear although sometimes it cannot see the bottom of the river due to water level change resulting from season change.	To reduce timber harvest, enhance water storage capacity of the ecosystem of the site to restore the environment in the site.
	Water opaque, cannot see bottom of ponds, streams	1	1		
	Water fairly clear but contains significant sediment	2			
	Sediment levels entirely normal	3			
Oxygen levels	Severe hypoxia kills fish and molluscs	0		The oxygen level in the site is almost the same as that under its natural status since there are little human activities here.	To control human activities to maintain the site's near to pristine conditions as much as possible.
	Some signs of hypoxia, fish gulping at surface	1			
	Oxygen levels close to natural original figures	2	2		
	Oxygen levels remain at natural healthy levels	3			
Water supply	Water supply and water table seriously modified and damaging ecological functions	0		The water supply keeps its natural status but is increasingly subject to the impacts of climate change, e.g., drought and floods. There is no diversion of river courses but historic timber harvest contributes to a lower water storage capacity of the site.	To conserve remaining forest while restoring vegetation to retain water conservation capacity of the site and the whole catchment.
	Water supply modified by major diversions, drainage or extractions	1			
	Water supply peaks (droughts and floods) exaggerated by regional changes in flow	2	2		
	Water supply remains in original seasonal pattern	3			
Physical disturbance (construction, fish traps, barrages, noisy activity)	Site is transformed by artificial developments, structures or disturbances	0		Only few roads and facilities for reserve's management and conservation were constructed here.	To strictly control the development of varied construction activities.
	Site faces much disturbance from construction and disturbance	1			
	Minor structures or disturbances only	2	2		
	Original physical state preserved	3			
Disaster damage	Ecology irreversibly modified by natural or artificial disaster	0		The site faces an escalating frequency of fire occurrence due to climate warming.	To reduce human-induced activities, improve preparedness for preventing and putting out fire to minimize the loss caused by fire.
	Serious disasters frequent and ecological recovery period long	1			
	Severity and frequency of disasters increased through human activities but ecology shows high recovery rate	2	2		
	Frequency of disasters remains natural, capacity to recover remains high	3			
Design resilience (size, altitude, NS axis, lithology, dynamics, multiple catchments)	Site is too small, isolated and homogeneous to offer ecological resilience	0		The site is big enough to secure its high resilience.	The site is naturally connected with surrounding areas to form a wide-scale conservation cluster.
	Site is naturally vulnerable to change	1			
	Site enjoys moderate resilience design	2	2		
	Site enjoys natural high resilience	3			
Sub-total of habitat health risks		Sum score	22	% of total maximum 66.7%	Index (HI) =0.667
Component 2. Species Health Assessment					
Health of target species	All target species show declines	0		Moose (<i>Alces alces</i>), mountain hare (<i>Lepus timidus</i>) and Hazel grouse (<i>Bonasa bonasia</i>) declines based on current ad-hoc	To strengthen conservation and restore habitats.
	Most target species show declines	1	1		
	Some target species show declines	2			

	All target species stable or increasing	3		patrolling findings.	
Health of vertebrate indicator species	All indicator species show declines	0		Indicator species, including fish and other vertebrate animals, generally declines.	To well conserve varied habitats (forest, wetlands, and etc.) and reduce illegal hunting.
	Most indicator species show declines	1	1		
	Some indicator species show declines	2			
	All indicator species stable or increasing	3			
Health of invertebrate indicator species	All indicator species show declines	0		Invertebrate indicator species generally goes down.	To reduce timber harvest and minimize the utilization of forest pesticide to restore environment of the site.
	Most indicator species show declines	1	1		
	Some indicator species show declines	2			
	All indicator species stable or increasing	3			
Health of plant indicator species	All indicator species show declines	0		Indicator plants, e.g., <i>Chosenia arbutifolia</i> , declines.	To reduce timber harvest, prohibit illegal hunting and restore its natural conditions of the site.
	Most indicator species show declines	1	1		
	Some indicator species show declines	2			
	All indicator species stable or increasing	3			
Species diversity retained	Richness of faunal/floral communities irreversibly depleted	0		Species diversity retained although their abundance declines.	To conserve and restore the site well.
	Significant gaps appearing in reporting of local species	1			
	Minor reductions in species richness noticed	2			
	Site retains full original species diversity with high proportion of locally potential species	3	3		
Highest trophic carnivores still present	No high trophic carnivores remain at site	0		Although all high trophic carnivorous animals still exist in the site, their population size and distribution ranges have greatly shrunk.	To protect and restore environment while stopping poaching.
	Few carnivores remain at site	1			
	Some high trophic carnivores lost from local fauna	2	2		
	All high trophic carnivores or original fauna still present	3			
AIS resilience	AIS out of control and permanently replacing some local species	0		No invasive species recorded in the site (pls note that limited knowledge of reserve's staff might overestimate the score).	To strengthen conservation to prevent AIS from the site while establishing an emergency response plan.
	AIS degrading ecosystem functions or displacing local species	1			
	Some AIS noticed at site but not seriously damaging ecosystem or local species	2			
	No AIS established in site	3	3		
Breeding/wintering success of target species	High mortality on wintering/breeding areas of site	0		The survival of target species is influenced by altered climate and habitats.	To restore ecological environment while abating human disturbance.
	Survival of some species a concern	1			
	Moderate survival	2	2		
	Key species all surviving well at site	3			
Key new species using site	Total species no. dropping over time	0		No new species was found and species abundance remains stable.	To strengthen the management and restore the habitats by reducing the disturbance from the human activities.
	No new species recorded but species richness stable	1	1		
	Some new species (other than AIS) noted	2			
	No. of new colonizing species exceed local extinctions	3			

Economic harvest species (legal and illegal)	Uncontrolled overharvesting eliminating some species	0		Population size of economic species has declined due to intensive harvest activities.	To strictly manage natural resources harvest and well-organize collection activities and intensity.
	Harvesting results in serious declines in several species	1	1		
	Harvesting results in minor declines of some species	2			
	No harvesting, or harvesting appears entirely sustainable	3			
Mortality/disaster of key species (fires, droughts, floods, diseases)	Disasters have caused irreversible or long term declines to important species	0		It is difficult to restore the habitats that were destroyed by fire.	To put fire prevention first, strengthen the control of combustion sources preventing the fire damages. Speed up the restoration of damaged habitats by planting trees.
	Disasters have caused serious damage to important species	1	1		
	Disasters cause minor damage to some species	2			
	No diseases, disasters in recent years or species recovery fast and complete	3			
Sub-total of species health risks		Sum score	17	% of total maximum 51.5%	Index (CI) =0. 515
Component 3. Environmental Context Health Assessment					
Site boundaries and zones	Adequate boundaries not clearly marked or respected	0		The site's boundary is well defined on paper and only some sections are marked with on-site boundary markers/pillars/stones.	To further set up more boundary markers/boards stones to well inform public about the location of boundary of the site.
	Boundaries inadequate or not respected	1			
	Some boundaries marked, partially respected	2	2		
	Effective boundaries, zones in place and marked	3			
Legal framework	No legal protection for site	0		The site is legally established and is governed in line with applicable regulations and bylaws. There are no disputes in land tenure.	To further strengthen legal campaigns to increase environmental awareness of public.
	Weak legal protection or protection for only part of site	1			
	Legal status assured but some weaknesses remaining	2	2		
	Strong legal security and law enforcement procedures in place	3			
Tourism impacts	Tourism uncontrolled and causing serious damage and disturbance to site	0		Tourism is on its initial stage and is well managed up to now.	To further consolidate management, control the number of tourists and soundly design land zoning for tourism.
	Some controls in place but tourism exceeds safe carrying capacity	1			
	Tourism controlled by causing some negative impacts	2	2		
	Tourism absent or well controlled and within safe limits	3			
Human resource use pressures	Pressure on natural resources of site out of control	0		Only limited grazing and land use activities exist surrounding the site.	To strictly control these activities to expand into the site while tapping alternative livelihood for local communities.
	High levels of collection or use of renewable resources	1			
	Low levels of pressure for resources or land-use (e.g. grazing)	2	2		
	No human pressure on resources, or pressures now contained by alternative livelihood program	3			
Additional threats or stresses from external developments	Water diversion plans, dams, drainage would completely change nature of the site	0		There are extremely few physical construction activities in the site. Some previous settlements have been removed.	To strictly refrain development activities and move the residents out of the site.
	External developments negatively affect the ecosystem of site	1			
	Low risk or low impacts can be absorbed by ecosystem	2	2		

(existing or planned)	No threats from external developments	3			
Local community relations	Local community alienated and oppose establishment of protected area on site	0		The local community supports the existence of the reserve. The site also contributes to increasing local residents' income through providing service opportunities for local communities.	To strengthen the communication, develop the co-management with the local communities, and manage the site strictly by establishing regular mechanisms and promoting economic development based on the environment protection.
	Local community accept existence of protected area but neutral and mostly not involved	1			
	Local community enjoy some benefits through employment or alternative livelihoods	2	2		
	Local communities strongly supportive; respect protected area and collaborate in protection, reporting work	3			
Sub-total of environmental context health risks		Sum score	12	% of total maximum 66.7%	Index (CI) =0.667
Overall EHI score (HI+SI+CI)/3 = (0.667+0.515+0.667)/3=0.616				Target identified for project	Index (CI) = 0.66

ANNEX 4. THE PROTECTED AREAS OF THE DAXING'ANLING LANDSCAPE (JULY 2012)

No.	Name	Administrative Division	Protected Level	Type of Ecosystem	Key Protected Targets	Coverage (ha)	Year of Establishment
A. HEILONGJIANG PROVINCE							
1	Heilongjiang Huzhong NNR	Daxing'anling Huzhong District	National	Forest	Cold-temperate zone bright coniferous forest, <i>Martes zibellina</i> , <i>Gulo</i> , <i>Tetrao parvirostris</i> , moose, etc	167,213	1984
2	Heilongjiang Nanwenghe NNR	Daxing'anling Songling District	National	Wetland	Ecosystems of forest, swamp, meadow, and water areas, and inhabited wild animals	229,523	1999
3	Heilongjiang Beijicun Provincial (Ministry) NR	Daxing'anling Mohe County	Provincial (ministry)	Forest	Forest ecosystem and inhabited wild animals	137,553	2002
4	Heilongjiang Duobukuer NNR	Daxing'anling Jiagedaqi Forestry Bureau	National	Wetland	The natural ecosystem, inland wetland and water area	128,959	2002
5	Heilongjiang Shuanghe NNR	Daxing'anling Dahe County	National	Forest	Forest ecosystem and inhabited wild animals	88,849	2002
6	Heilongjiang Lingfeng Provincial (Ministry) NR	Amuer Forestry Bureau, Daxing'anling Mohe County	Provincial (ministry)	Forest	Forest ecosystem and inhabited wild animals	68,373	2002
7	Heilongjiang Chuonahe NNR	Hanjiayuan Forestry Bureau, Daxing'anling Huma County	National	Wetland	Forest ecosystem and wetland resources	105,580	2002
8	Heilongjiang Panzhong Provincial (Ministry) NR	Daxing'anling Tahe County	Provincial (ministry)	Forest	The natural ecosystem	55,074	2004
9	Heilong Beiqing Gulo NR	Daxing'anling Songling Forestry Bureau	Municipal	Forest	<i>Gulo</i>	50,351	2010
10	Heilongjiang Daqingshan NR	Daxing'anling Xinling Forestry Bureau	Municipal	Wetland	<i>Sphagnum</i> moss wetland ecosystem	31,435	2010
11	Heilongjiang Ganbuhe NR	Daxing'anling Xinling Forestry Bureau	Municipal	Wetland	<i>Sphagnum</i> moss wetland ecosystem, Forest ecosystem	77,218	2010
12	Heilongjiang Yixi PA	Daxing'anling Amuer Forestry Bureau	Municipal	Forest	Typical cold-temperate zone forest ecosystem	20,038	2010
13	Heilongjiang Xiufeng NR	Daxing'anling Tahe Forestry Bureau	Municipal	Wetland	Cold-temperate zone forest, grass cluster wetland ecosystem	35,579	2010
14	Heilongjiang Dalin NR	Daxing'anling Tahe Forestry Bureau	Municipal	Forest	Cold-temperate zone natural secondary forest, wetland ecosystem	22,896	2010
15	Heilongjiang Changqing NR	Daxing'anling Tuqiang Forestry Bureau	Municipal	Forest	<i>Tetrao parvirostris</i>	56,016	2010
16	Heilongjiang Jingou SNR	Daxing'anling Mohe Forestry Bureau	Municipal	Forest	Forest ecosystem	10,281	2010
17	Heilongjiang Wujiabeinihe SNR	Daxing'anling Shibazhan Forestry Bureau	Municipal	Forest	Cold-temperate zone forest swamp wetland ecosystem, habitat of rare and endangered species	10,893	2010
18	Heilongjiang Hutonghe PR	Daxing'anling Hanjiayuan Forestry Bureau	Municipal	Forest	Forest ecosystem and wild plant - <i>Schisandra chinensis</i>	23,468	2010
19	Heilongjiang Huzhong Yuanshe NR	Daxing'anling Huzhong Forestry Bureau	Municipal	Forest	Wild animal - <i>Moschus moschiferus</i>	60,846	2010
20	Heilongjiang Daxing'anling Galahe Wetland NR	Daxing'anling Huma County Forestry Bureau	Municipal	Wetland	Wetland ecosystem	84,038	2011
21	Heilongjiang Daxing'anling Panguhe Sphagnum Moss Wetland NR	Daxing'anling Tahe Forestry Bureau	Municipal	Wetland	<i>Sphagnum</i> moss forest wetland	52,728	2011
22	Heilongjiang Nadulihe SNR	Daxing'anling Songling Forestry Bureau	Municipal	Wetland	Wetland ecosystem	33,151	2011
23	Heilongjiang Daxing'anling Ermuerhe Wetland NR	Daxing'anling Tuqiang Forestry Bureau	Municipal	Wetland	Wetland ecosystem	50,106	2011
24	Heilongjiang Daxing'anling Weilegenhe Wetland SNR	Daxing'anling Hanjiayuan Forestry Bureau	Municipal	Wetland	Wetland ecosystem	30,200	2011
25	Heilongjiang Daxing'anling Huyuan Chosenia NR	Daxing'anling Huzhong Forestry Bureau	Municipal		Wild plant - <i>Setaira viridis</i> (L) Beauv	34,954	2011
26	Heilongjiang Daxing'anling Ermuerhe estuary Wetland Sub-NR	Daxing'anling Amuer Forestry Bureau	Municipal	Wetland	Wetland ecosystem	26,045	2011
27	Heilongjiang	Daxing'anling	Municipal	Wetland	Wetland ecosystem	27,971	2011

	Daxing'anling Halabaqi Wetland NR	Shibazhan Forestry Bureau					
28	Heilongjiang Daxing'anling Mendulihe Wetland NR	Daxing'anling Xilinji Forestry Bureau	Municipal	Wetland	Wetland ecosystem	20,001	2011
29	Heilongjiang Jiagedaqi Ganhe Wetland Park	Daxing'anling Jiagedaqi District	Prefectural	Wetland Park	Swamp wetland, riverine wetland	20,704	2010
30	Heilong Mohe Jiuqubawan Wetland Park	Tuqiang Forestry Bureau, Daxing'anling Mohe County	National	Wetland Park	Swamp wetland, riverine wetland	4,929	2012
31	Heilongjiang Jiagedaqi Gulihe Wetland Park	Daxing'anling Jiagedaqi Forestry Bureau	National	Wetland Park	Swamp wetland, riverine wetland	28,702	2012
32	Heilongjiang Daxing'anling Shuanghe River Source National Wetland Park	Hanjiayuan Forestry Bureau, Daxing'anling Huma County	National	Wetland Park	Swamp wetland, riverine wetland	8,712	2011
33	Heilongjiang Daxing'anling Amuer National Wetland Park	Amuer Forestry Bureau, Daxing'anling Mohe County	National	Wetland Park	Swamp wetland, riverine wetland	3,226	2011
INNER MONGOLIA							
34	Inner Mongolia Hanma NR	Genhe City, Hulunbeir League, Inner Mongolia	National	Forest	Cold-temperate zone coniferous forest ecosystem	107,348	1958
35	Inner Mongolia Ergun NR	Moerdaoga Town, Ergun City, Hulunbeir League, Inner Mongolia	National	Forest	Forest ecosystem, rare and endangered wildlife, forest wetland and riverine wetland	124,527	1998
36	Inner Mongolia Ar'ershan NR	Ar'ershan City, Xinggan League, Inner Mongolia	Provincial (ministry)	Forest	Cold-temperate zone forest, <i>Sphagnum</i> moss swamp wetland, flora and fauna	81,963	2002
37	Inner Mongolia A'lu NR	Mangui Town, Genhe City, Hulunbeir League, Inner Mongolia	Provincial (ministry)	Forest	National rare animals including brown bear, snow hare, grouse, sable, etc and their habitats	64,386	1955
38	Inner Mongolia Wuma NR	Ergun City, Hulunbeir League, Inner Mongolia	Provincial (ministry)	Forest	The original ecosystem of cold-temperate zone bright coniferous forest in tundra mountains	659,372	2003
39	Inner Mongolia Kuilehe NR	Oroqen autonomous banner, Hulunbeir League, Inner Mongolia	Provincial (ministry)	Wetland	Wetland ecosystem and inhabited wildlife resources	69,634	2002
40	Inner Mongolia Xing an'li NR	Yakeshi City, Hulunbeir League, Inner Mongolia	Provincial (ministry)	Wetland	Wetland ecosystem and inhabited wildlife resources	66,381	2002
41	Inner Mongolia Bilahe NR	Oroqen autonomous banner, Hulunbeir League, Inner Mongolia	Provincial (ministry)	Wetland	Wetland ecosystem and inhabited wildlife resources	56,604	2003
42	Inner Mongolia Genhe River Source National Wetland Park	Genhe City, Hulunbeir League, Inner Mongolia	National	Wetland	Cold-temperate zone riverine wetland, and swamp in the forest region	59,060	2011
43	Inner Mongolia Tulihe National Wetland Park	Yakeshi City, Hulunbeir League, Inner Mongolia	National	Wetland	Cold-temperate zone riverine wetland, and swamp in the forest region	5,413	2011
Total area (ha.)						3,100,300	

ANNEX 5. ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST

QUESTION 1:

Has a combined environmental and social assessment/review that covers the proposed project already been completed by implementing partners or donor(s)?

Select answer below and follow instructions:

X NO → Continue to Question 2 (do not fill out Table 1.1)

YES → No further environmental and social review is required if the existing documentation meets UNDP’s quality assurance standards, and environmental and social management recommendations are integrated into the project. Therefore, you should undertake the following steps to complete the screening process:

1. Use Table 1.1 below to assess existing documentation. (It is recommended that this assessment be undertaken jointly by the Project Developer and other relevant Focal Points in the office or Bureau).
2. Ensure that the Project Document incorporates the recommendations made in the implementing partner’s environmental and social review.
3. Summarize the relevant information contained in the implementing partner’s environmental and social review in Annex A.2 of this Screening Template, selecting Category 1.
4. Submit Annex A to the PAC, along with other relevant documentation.

Note: Further guidance on the use of national systems for environmental and social assessment can be found in Annex B.

TABLE 1.1: CHECKLIST FOR APPRAISING QUALITY ASSURANCE OF EXISTING ENVIRONMENTAL AND SOCIAL ASSESSMENT	Yes/No
1. Does the assessment/review meet its terms of reference, both procedurally and substantively?	
2. Does the assessment/review provide a satisfactory assessment of the proposed project?	
3. Does the assessment/review contain the information required for decision-making?	
4. Does the assessment/review describe specific environmental and social management measures (e.g. mitigation, monitoring, advocacy, and capacity development measures)?	
5. Does the assessment/review identify capacity needs of the institutions responsible for implementing environmental and social management issues?	
6. Was the assessment/review developed through a consultative process with strong stakeholder engagement, including the view of men and women?	
7. Does the assessment/review assess the adequacy of the cost of and financing arrangements for environmental and social management issues?	
Table 1.1 (continued) For any “no” answers, describe below how the issue has been or will be resolved (e.g. amendments made or supplemental review conducted).	

QUESTION 2:

Do all outputs and activities described in the Project Document fall within the following categories?

- Procurement (in which case UNDP’s [Procurement Ethics](#) and [Environmental Procurement Guide](#) need to be complied with)
- Report preparation
- Training
- Event/workshop/meeting/conference (refer to [Green Meeting Guide](#))
- Communication and dissemination of results

Select answer below and follow instructions:

X NO → Continue to Question 3

- YES** → No further environmental and social review required. Complete Annex A.2, selecting Category 1, and submit the completed template (Annex A) to the PAC.

QUESTION 3:

Does the proposed project include activities and outputs that support *upstream* planning processes that potentially pose environmental and social impacts or are vulnerable to environmental and social change (refer to Table 3.1 for examples)? (Note that *upstream* planning processes can occur at global, regional, national, local and sectoral levels)

Select the appropriate answer and follow instructions:

- NO** → Continue to Question 4.

X YES → Conduct the following steps to complete the screening process:

1. Adjust the project design as needed to incorporate UNDP support to the country(ies), to ensure that environmental and social issues are appropriately considered during the upstream planning process. Refer to Section 7 of this Guidance for elaboration of environmental and social mainstreaming services, tools, guidance and approaches that may be used.
2. Summarize environmental and social mainstreaming support in Annex A.2, Section C of the Screening Template and select "Category 2".
3. If the proposed project **ONLY** includes upstream planning processes then screening is complete, and you should submit the completed Environmental and Social Screening Template (Annex A) to the PAC. If downstream implementation activities are also included in the project then continue to Question 4.

TABLE 3.1 EXAMPLES OF UPSTREAM PLANNING PROCESSES WITH POTENTIAL DOWNSTREAM ENVIRONMENTAL AND SOCIAL IMPACTS	Check appropriate box(es) below
1. Support for the elaboration or revision of global- level strategies, policies, plans, and programmes. <i>For example, capacity development and support related to</i>	<input type="checkbox"/>

TABLE 3.1 EXAMPLES OF UPSTREAM PLANNING PROCESSES WITH POTENTIAL DOWNSTREAM ENVIRONMENTAL AND SOCIAL IMPACTS	Check appropriate box(es) below
<i>international negotiations and agreements. Other examples might include a global water governance project or a global MDG project.</i>	
<p>2. Support for the elaboration or revision of regional-level strategies, policies and plans, and programmes.</p> <p><i>For example, capacity development and support related to transboundary programmes and planning (river basin management, migration, international waters, energy development and access, climate change adaptation etc.).</i></p>	
<p>3. Support for the elaboration or revision of national-level strategies, policies, plans and programmes.</p> <p><i>For example, capacity development and support related to national development policies, plans, strategies and budgets, MDG-based plans and strategies (e.g. PRS/PRSPs, NAMAs), sector plans.</i></p>	
<p>4. Support for the elaboration or revision of sub-national/local-level strategies, policies, plans and programmes.</p> <p><i>For example, capacity development and support for district and local level development plans and regulatory frameworks, urban plans, land use development plans, sector plans, provincial development plans, provision of services, investment funds, technical guidelines and methods, stakeholder engagement.</i></p>	YES

QUESTION 4:

Does the proposed project include the implementation of *downstream* activities that potentially pose environmental and social impacts or are vulnerable to environmental and social change?

To answer this question, you should first complete Table 4.1 by selecting appropriate answers. If you answer “No” or “Not Applicable” to all questions in Table 4.1 then the answer to Question 4 is “NO.” If you answer “Yes” to any questions in Table 4.1 (even one “Yes” can indicate a significant issue that needs to be addressed through further review and management) then the answer to Question 4 is “YES”:

NO → No further environmental and social review and management required for downstream activities. Complete Annex A.2 by selecting “Category 1”, and submit the Environmental and Social Screening Template to the PAC.

X YES → Conduct the following steps to complete the screening process:

1. Consult Section 8 of this Guidance, to determine the extent of further environmental and social review and management that might be required for the project.
2. Revise the Project Document to incorporate environmental and social management measures. Where further environmental and social review and management activity cannot be undertaken prior to the PAC, a plan for undertaking such review and management activity within an acceptable period of time, post-PAC approval (e.g. as the first phase of the project) should be outlined in Annex A.2.
3. Select “Category 3” in Annex A.2, and submit the completed Environmental and Social Screening Template (Annex A) and relevant documentation to the PAC.

TABLE 4.1: ADDITIONAL SCREENING QUESTIONS TO DETERMINE THE NEED AND POSSIBLE EXTENT OF FURTHER ENVIRONMENTAL AND SOCIAL REVIEW AND MANAGEMENT

1. Biodiversity and Natural Resources	Answer (Yes/No/ Not Applicable)
1.1 Would the proposed project result in the conversion or degradation of modified habitat , natural habitat or critical habitat ?	No
1.2 Are any development activities proposed within a legally protected area (e.g. natural reserve, national park) for the protection or conservation of biodiversity?	No
1.3 Would the proposed project pose a risk of introducing invasive alien species?	No
1.4 Does the project involve natural forest harvesting or plantation development without an independent forest certification system for sustainable forest management (e.g. PEFC , the Forest Stewardship Council certification systems, or processes established or accepted by the relevant National Environmental Authority)?	No
1.5 Does the project involve the production and harvesting of fish populations or other aquatic species without an accepted system of independent certification to ensure sustainability (e.g. the Marine Stewardship Council certification system, or certifications, standards, or processes established or accepted by the relevant National Environmental Authority)?	No
1.6 Does the project involve significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction.</i>	No
1.7 Does the project pose a risk of degrading soils?	No
2. Pollution	Answer (Yes/No/ Not Applicable)
2.1 Would the proposed project result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and transboundary impacts ?	No
2.2 Would the proposed project result in the generation of waste that cannot be recovered, reused, or disposed of in an environmentally and socially sound manner ?	No
2.3 Will the propose project involve the manufacture, trade, release, and/or use of chemicals and hazardous materials subject to international action bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Convention on Persistent Organic Pollutants, or the Montreal Protocol.</i>	No
2.4 Is there a potential for the release, in the environment, of hazardous materials resulting from their production, transportation, handling, storage and use for project activities?	No

TABLE 4.1: ADDITIONAL SCREENING QUESTIONS TO DETERMINE THE NEED AND POSSIBLE EXTENT OF FURTHER ENVIRONMENTAL AND SOCIAL REVIEW AND MANAGEMENT

2.5 Will the proposed project involve the application of pesticides that have a known negative effect on the environment or human health?	No
3. Climate Change	
3.1 Will the proposed project result in significant ³⁰ greenhouse gas emissions? <i>Annex E provides additional guidance for answering this question.</i>	No
3.2 Is the proposed project likely to directly or indirectly increase environmental and social vulnerability to climate change now or in the future (also known as maladaptive practices)? You can refer to the additional guidance in Annex C to help you answer this question. <i>For example, a project that would involve indirectly removing mangroves from coastal zones or encouraging land use plans that would suggest building houses on floodplains could increase the surrounding population's vulnerability to climate change, specifically flooding.</i>	No
4. Social Equity and Equality	Answer (Yes/No/ Not Applicable)
4.1 Would the proposed project have environmental and social impacts that could affect indigenous people or other vulnerable groups?	Yes
4.2 Is the project likely to significantly impact gender equality and women's empowerment ³¹ ?	Yes
4.3 Is the proposed project likely to directly or indirectly increase social inequalities now or in the future?	No
4.4 Will the proposed project have variable impacts on women and men, different ethnic groups, social classes?	No
4.5 Have there been challenges in engaging women and other certain key groups of stakeholders in the project design process?	No
4.6 Will the project have specific human rights implications for vulnerable groups?	No
5. Demographics	
5.1 Is the project likely to result in a substantial influx of people into the affected community(ies)?	No
5.2 Would the proposed project result in substantial voluntary or involuntary resettlement of populations? <i>For example, projects with environmental and social benefits (e.g. protected areas, climate change adaptation) that impact human settlements, and certain disadvantaged groups within these settlements in</i>	No

³⁰ Significant corresponds to CO₂ emissions greater than 100,000 tons per year (from both direct and indirect sources). Annex E provides additional guidance on calculating potential amounts of CO₂ emissions.

³¹ Women are often more vulnerable than men to environmental degradation and resource scarcity. They typically have weaker and insecure rights to the resources they manage (especially land), and spend longer hours on collection of water, firewood, etc. (OECD, 2006). Women are also more often excluded from other social, economic, and political development processes.

TABLE 4.1: ADDITIONAL SCREENING QUESTIONS TO DETERMINE THE NEED AND POSSIBLE EXTENT OF FURTHER ENVIRONMENTAL AND SOCIAL REVIEW AND MANAGEMENT

<i>particular.</i>	
<p>5.3 Would the proposed project lead to significant population density increase which could affect the environmental and social sustainability of the project?</p> <p><i>For example, a project aiming at financing tourism infrastructure in a specific area (e.g. coastal zone, mountain) could lead to significant population density increase which could have serious environmental and social impacts (e.g. destruction of the area’s ecology, noise pollution, waste management problems, greater work burden on women).</i></p>	No
6. Culture	
<p>6.1 Is the project likely to significantly affect the cultural traditions of affected communities, including gender-based roles?</p>	No
<p>6.2 Will the proposed project result in physical interventions (during construction or implementation) that would affect areas that have known physical or cultural significance to indigenous groups and other communities with settled recognized cultural claims?</p>	No
<p>6.3 Would the proposed project produce a physical “splintering” of a community?</p> <p><i>For example, through the construction of a road, powerline, or dam that divides a community.</i></p>	No
7. Health and Safety	
<p>7.1 Would the proposed project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?</p> <p><i>For example, development projects located within a floodplain or landslide prone area.</i></p>	No
<p>7.2 Will the project result in increased health risks as a result of a change in living and working conditions? In particular, will it have the potential to lead to an increase in HIV/AIDS infection?</p>	No
<p>7.3 Will the proposed project require additional health services including testing?</p>	No
8. Socio-Economics	
<p>8.1 Is the proposed project likely to have impacts that could affect women’s and men’s ability to use, develop and protect natural resources and other natural capital assets?</p> <p><i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their development, livelihoods, and well-being?</i></p>	Yes
<p>8.2 Is the proposed project likely to significantly affect land tenure arrangements and/or traditional cultural ownership patterns?</p>	No
<p>8.3 Is the proposed project likely to negatively affect the income levels or employment opportunities of vulnerable groups?</p>	No
9. Cumulative and/or Secondary Impacts	
<p>9.1 Is the proposed project location subject to currently approved land use plans (e.g. roads, settlements) which could affect the environmental</p>	No

TABLE 4.1: ADDITIONAL SCREENING QUESTIONS TO DETERMINE THE NEED AND POSSIBLE EXTENT OF FURTHER ENVIRONMENTAL AND SOCIAL REVIEW AND MANAGEMENT

<p>and social sustainability of the project?</p> <p><i>For example, future plans for urban growth, industrial development, transportation infrastructure, etc.</i></p>	
<p>9.2 Would the proposed project result in secondary or consequential development which could lead to environmental and social effects, or would it have potential to generate cumulative impacts with other known existing or planned activities in the area?</p> <p><i>For example, a new road through forested land will generate direct environmental and social impacts through the cutting of forest and earthworks associated with construction and potential relocation of inhabitants. These are direct impacts. In addition, however, the new road would likely also bring new commercial and domestic development (houses, shops, businesses). In turn, these will generate indirect impacts. (Sometimes these are termed “secondary” or “consequential” impacts). Or if there are similar developments planned in the same forested area then cumulative impacts need to be considered.</i></p>	No

ENVIRONMENTAL AND SOCIAL SCREENING SUMMARY

(to be filled in after the Environmental and Social Screening Checklist has been completed)

Name of Proposed Project: CBPF Strengthening the management effectiveness of the protected area network in the Daxing’anling landscape

A. Environmental and Social Screening Outcome

Select from the following:

Category 1. No further action is needed

Category 2. Further review and management is needed. There are possible environmental and social benefits, impacts, and/or risks associated with the project (or specific project component), but these are predominantly indirect or very long-term and so extremely difficult or impossible to directly identify and assess.

Category 3. Further review and management is needed, and it is possible to identify these with a reasonable degree of certainty. If Category 3, select one or more of the following sub-categories:

Category 3a: Impacts and risks are limited in scale and can be identified with a reasonable degree of certainty and can often be handled through application of standard best practice, but require some minimal or targeted further review and assessment to identify and evaluate whether there is a need for a full environmental and social assessment (in which case the project would move to Category 3b).

- Category 3b: Impacts and risks may well be significant, and so full environmental and social assessment is required. In these cases, a scoping exercise will need to be conducted to identify the level and approach of assessment that is most appropriate.

B. Environmental and Social Issues (for projects requiring further environmental and social review and management)

In this section, you should list the key potential environmental and social issues raised by this project. This might include both environmental and social opportunities that could be seized on to strengthen the project, as well as risks that need to be managed. You should use the answers you provided in Table 4.1 as the basis for this summary, as well as any further review and management that is conducted.

The project will provide support to environmental and sustainability mainstreaming by preparing an implementation plan for biodiversity conservation and sustainable use under the *Master Plan for Ecological Restoration and Economic transition in the Daxing'anling region*. It will also seek to ensure biodiversity is mainstreamed into the 13th provincial 5 Year Development Plans and into specific sectoral plans. This will lead to enhanced biodiversity and ecosystem services across the landscape. The project will support implementation of the regional policy shift from unsustainable forestry practices (which have exhausted the natural resource base) to sustainable livelihoods based on careful management and use of timber and non-timber forest products as well as ecotourism. All environmental and social impacts are expected to be positive.

Promotion of ecotourism as a new livelihood option is intended to bring an influx of visitors to the area. This new economic opportunity has the potential to provide badly needed employment opportunities particularly for women, and also for the indigenous Ewenki and other minority groups, due to the interest in their traditional lifestyles. The careful development and monitoring of detailed ecotourism plans will ensuring that negative environmental and social impacts are managed and minimized.

The project will involve a review of the coverage of the existing protected areas, and is expected to result in proposals to create new protected areas. Due to the extremely low population densities in the region, it is not expected that this would lead to any substantial resettlement of populations.

For two demonstration protected areas, the project will promote participatory, integrated management which will put the needs and aspirations of local communities at its heart. There will be significant positive benefits through enhanced environmental quality, through new livelihood opportunities (particularly for women and minority groups), and through better quality of life.

C. Next Steps (for projects requiring further environmental and social review and management):

In this section, you should summarize actions that will be taken to deal with the above-listed issues. If your project has Category 2 or 3 components, then appropriate next steps will likely involve further environmental and social review and management, and the outcomes of this work should also be summarized here. Relevant guidance should be obtained from Section 7 for Category 2, and Section 8 for Category 3.

This biodiversity conservation project is being designed to provide the maximum environmental enhancements to the region through the conservation of biodiversity and restoration of ecosystem services. These measures will enhance both the social and economic sustainable benefits that can be derived by the local community from the environment.

Local community participation (with a particular attention to women and minority and indigenous groups) in the planning, management and utilization of natural resources will be a central component of the project, and will ensure that environmental and social impacts are fully considered and addressed.

Since the impact of the project is expected to be positive, no concrete next steps for ESS are envisaged.

D. Sign Off

Project Manager:

Date

PAC:

Date

Programme Manager:

Date

ANNEX 6. ECONOMIC VALUATION COMPONENT

The national project economic valuation component will provide the umbrella for the economic valuation to be undertaken in the Daxing'anling region. Output 1.1 (*Valuation of the ecosystem services provided by the Daxing'anling Landscape provides a strong business case for conserving biodiversity and expanding and strengthening the PA network*) will be undertaken through a technical service contract, under the framework and guidance of the International Technical Adviser - Economics of the National project (see TOR in national project) who will have a peer review / technical lead role for all the provincial studies. This will ensure standardized / best practices approaches / co-ordination and learning across the projects.

The Daxing'anling project will therefore benefit from the core objectives of the National level economics component which are to:

- Provide a strategic overview / framework for the provincial level projects.
- Support the development of policy relevant to the economic analysis of ecosystems and sustainable financing mechanisms.
- Promote best practice ecosystem valuation approaches
- Lead on data management
- Undertake high level analytical work to inform the development of policies and facilitate mainstreaming of sustainable economic principles into sector policies and plans.

Output 1.1 will deliver a comprehensive valuation (monetary and non-monetary values) of the ecosystem services provided by the Daxing'anling Landscape's biodiversity. A high level qualitative assessment of the area classifies the following ecosystem services as important – timber products, food (wild berries, mushroom, vegetables and fish), regulation of greenhouse gases, micro-climatic stabilisation, water provision and regulation, water purification and nutrient retention. Other ecosystem services provided by the area are firewood, natural medicines, ornamental resources, aquifer recharge, educational services, recreation and tourism and landscape and amenity. This valuation will be undertaken at 3 levels:

- for the whole Daxing'anling Landscape,
- for the entire PA system,
- and for the two demonstration sites (Duobuku'er NNR and Genheyuan NWP).

The study will assess the potential cost of inaction for sector development, if biodiversity and these ecosystem services are damaged through a lack of effective protection and management. Key sectors dependent on the Daxing'anling Landscape's ecosystem services, whose productivity will be negatively affected by ecosystem degradation or loss are forestry, harvest of non-timber forest products and tourism as well as downstream agriculture. The results will provide a critical evidence base that can be used to persuade policy makers, local communities and the private sector that it is in their economic interest to conserve and use biodiversity in a sustainable manner. This will strengthen the justification for environmental protection policies and help leverage greater payments from eco-compensation initiatives and payments for ecosystem services (PES) that could be used to motivate and reward local communities for good environmental stewardship. The study will also confirm the importance of the region for its biodiversity, both globally and to China.

A participatory process will therefore be followed: (i) to review the existing evidence, (ii) to fill gaps (including the provision of seed funding to stimulate new research eg on the relationships between forest and wetland cover and permafrost and carbon sequestration), (iii) to prepare a

comprehensive and user-friendly overview, and (iv) to deliver targeted communications materials to key stakeholder groups on the economic rationale for improved biodiversity conservation in the region. This latter activity will be given the highest attention, with high profile national and local launches of the final report (including policy seminars), sectoral policy briefings, series of media releases, films, web pages and high quality presentations that can be used by educators and PA communications staff. The findings of the valuation review will be used to enhance the ability of policy makers, planners, and managers from sectoral agencies to incorporate economic and financial data on biodiversity into their decision making. Therefore, through an associated training activity, the study will build the capacity of FMA staff and counterparts to understand and use the results in their dealings with sectoral agencies.

Draft Terms of Reference for the Daxing'anling Study

(adapted from draft prepared by Camille Bann)

The Daxing'anling economic valuation project will be undertaken by local experts with support and review from the International consultant leading the economics for the national level project. More than one local consultant may be hired to cover specific area of expertise, such as ecosystem service valuation sustainable finance and Business Planning. It will also be necessary to form inter-disciplinary teams. For example, scientists provide the bio-physical information to value of regulatory services such as support to fisheries, water flow regulation and carbon sequestration and engineers to design and costs possible mitigation measures. It may make sense for local experts to cover more than one provincial level project, allowing a full time position to be offered over the proposed economic assessment timeframe.

Duties and responsibilities

Economic appraisal:

- Review of existing valuation studies at the site, PA system and ecosystem scale and identify potential value transfers.
- Undertake a detailed evaluation of data availability at provincial level
- Review EHI to ensure consistency in terms of context for economic studies and baselines and targets defined in the economic studies, and to build up a qualitative understanding of the ecosystem services provided at the site
- Provide a detailed design of the economic assessment / appraisal study setting out scale of study (note that detailed assessment will be at the selected demonstration sites, but a high level assessment is also required by the PA system and landscape scale), rationale for study (key question to be addressed, ecosystem services to be valued, appraisal context (e.g. cost benefit analysis) and other analysis to be undertaken (e.g. distributional analysis, impact on local livelihoods, alternative income options).
- Implement economic study (this is likely to include survey work). A comprehensive economic study is anticipated that is underpinned by good socio-economic data and includes analysis of results in terms of distributional aspects and opportunities for the improvement local livelihoods.
- Provide a report that clearly presents approach, results and uncertainty surrounding findings, and specifies recommended follow up actions both to develop the evidence based and to ensure key findings are acted upon.
- Provide appropriate dissemination materials for different stakeholder groups (decision makers, users of wetland resources, general public

Sustainable finance and business planning:

- Review provincial 5 year plans to understand the requirements for eco-compensation at the provincial level. What regulations are in place at the provincial level in terms of eco-compensation mechanisms? What are the barriers to eco-compensation and other PA financing mechanisms at the provincial level?
- Review of sustainable financing options and identification of appropriate revenue generating mechanisms at the site and landscape scale. What are the opportunities for wetland eco-compensation and other types of PA financing mechanisms at the site? How are wetlands in the landscape and the demonstration sites currently financed? Apart from government funds and eco-compensation mechanisms, what other financing opportunities are there at the site? Recommendations should be made on the most appropriate financing approaches along with a plan for their development and implementation.
- Initial design of PES (if appropriate). This will involve: (i) defining, measuring and valuing eco-system service (s); (ii) identifying prospective sellers and buyers (iii) building capacity of community land users to modify land use practices through technical assistance / extension on biodiversity friendly land use practices. This initial design should follow best practice (Wunder *et al* 2010).
- Develop site-level business plans (if appropriate). The business plans will build on the valuation work, and review of sustainable financing options. It will set out operating and capital costs required to optimally manage the site, the current funding gap and how that gap can be addressed.

General

- Close stakeholder liaison at all stages of the project ensure that people agree with the approaches being used and have confidence in final outcomes
- Preparation of dissemination materials at key points in study (e.g. after detail design to inform stakeholders of work, final results)

Qualifications

- University education (MS or PhD) with expertise in the area natural resource economics, business planning;
- At least 10 years of professional experience, of which at least eight are at international level;
- Previous experience with GEF projects is an added plus;
- Be an effective negotiator with excellent oral and presentation skills;
- Excellent writing skills in English,
- A good working knowledge of English and Chinese is essential.

ANNEX 7. BASELINE REPORT FOR THE DAXING'ANLING LANDSCAPE

See separate MS Word file

ANNEX 8. LETTER OF AGREEMENT FOR UNDP DIRECT PROJECT SERVICES

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE STATE FORESTRY ADMINISTRATION FOR THE PROVISION OF SUPPORT SERVICES

Dear Mr. Ma Guangren,
Director General of Wetland Conservation and Management Office, State Forestry
Administration

1. Reference is made to consultations between officials of the *State Forestry Administration* (hereinafter referred to as "SFA") and officials of UNDP with respect to the provision of support services by the UNDP country office for the project. UNDP and SFA hereby agree that the UNDP country office may provide such support services at the request of SFA through its institution designated in the relevant project support document or project document, as described below.

2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of SFA-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.

3. The UNDP country office may provide, at the request of SFA or its designated institutions, the following support services for the activities of the project:

- (a) Identification and/or recruitment of project and programme personnel;
- (b) Procurement of goods and services; and
- (c) Other project related actions as needed and requested in addition to the country office's project oversight support covered under the GEF implementing Agency fee.

4. The procurement of goods and services and the recruitment of project personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the project support document or project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a project, the annex to the project support document is revised with the mutual agreement of the UNDP Country Director and the designated institution.

5. The relevant provisions of the Standard Basic Assistance Agreement between the Government of China and the United Nations Development Programme in China signed on January 29 1979 (the "SBAA"), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution. The responsibility of the UNDP country office for the provision of the support services

described herein shall be limited to the provision of such support services detailed in the annex to the project support document or project document.


6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA and the project support document or project document.

7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the project support document.

8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.


9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office three signed copies of this letter. Upon your signature, this letter shall constitute an agreement between the SFA and UNDP on the terms and conditions for the provision of support services by the UNDP country office for the project.



Patrick Hayerman
Deputy Country Director
United Nations Development Programme

March 28, 2013



Ma Guangren
Director General
Wetland Conservation and Management Office
State Forestry Administration

March 28, 2013

ANNEX 9. CONCLUSIONS FROM CONSULTATION WITH REPRESENTATIVES OF THE AOLUGOYA INDIGENOUS PEOPLE.

Discussion on the Involvement of Aoluguya Ewenki into the Project of Constructing Genhe River Source National Wetland Park

Interview Date: Nov. 20, 2012

Participants (Ewenki): Mr. Dai Guangming (Chief of Township), Mr. He Yong, Mr. Gu Xinjun, and Ms. Yu Lan (Deputy Chief of Township).

Ewenki in history and the relationship with the wetland park

1. The Ewenki is the only ethnic minority in China, which raises reindeers. 400 years ago, the Ewenki emigrated from Lake Baikal Basin in Russia to Daxing an'ling region, where they live for generations, and become the aborigines in Daxing an'ling region.
2. The Ewenki's culture of reindeer, hunting, birth bark, hide, and Shamanism is very similar with the culture of Arctic and Sub-Arctic aborigines. The belief of reindeer-raising Ewenki on "Honor Nature and Obeying Nature Law" is exactly the key concept of Arctic culture, which was extended to the Xing'an Ling region by the Ewenki. The Aoluguya Ewenki live a hunting-and-migrated life in the unique environment of Daxing an'ling region, raises reindeers as one and only in China, and believes in Shamanism that embraces animalism and honors nature.

In what ways the Ewenki would like to involve into the Project

3. The Ewenki could engage into the development and protection of the wetland park;
4. Development, protection, and rational utilization are crucial for the sustainable development of the wetland park. The Ewenki live in the Daxing an'ling for generations, who understand well of the nature conditions, the maintains, the rivers, the flora and fauna, and their variations. Hence, it is expected to involve the Ewenki into the relevant development, protection, and construction of the wetland park. For instance, the Aoluguya Ewenki could engage into the monitoring of environment, flora and fauna, and rivers, forest resources management, and forest fire prevention.
5. The Ewenki's unique mode of production, lifestyle and culture are supposed to be reserved as a component of the wetland park development and protection.
6. The Ewenki live in the Daxing an'ling regions for generations, where they develop their particular working tools and language matching with the activities of hunting and reindeer herding. Concentrating from the forest peoples and even early humans, the Ewenki's culture is the carrier of their spiritual emotion and personality, and media for their cohesion and affinity.
7. The Ewenki's ancient culture and customs, and their concept of honoring the nature are supposed to be understood by more people, which could reflect the functions of the wetland

park on improving the public awareness on eco-conservation, eco-tourism and so forth. The living style of the Ewenki achieves the balance between rational development of nature resources and eco environment conservation, which demonstrates the harmony between mankind and nature.

8. Therefore, the culture of the Ewenki should be an important component in terms of wetland park development and protection.

The adverse impacts posed on the Ewenki due to the implementation of this project

9. The establishment of Genhe Wetland Park has not influenced the livelihood and lifestyles of local Ewenki. Both local government and forestry bureaus pay high attention to protecting the culture of local ethnic minority. The local Ewenki are allowed to conserve their traditional culture and lifestyles by migrating reindeer in some specific areas of the Genhe Wetland Park.

10. Due to the park's development and utilization, the numbers of the tourists will increase. The interference of the increased tourists including litter will cause eco environment degradation. Hence, stringent regulations are to be developed.

11. The Ewenki hope that their migration and reindeer herding, to mention some, will not be affected because of being listed as the National Wetland Park.

12. The four representatives are willing to participate in community forum by brainstorming the development and conservation of the park.